

TaurusDB

API Reference

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1 Before You Start

1.1 Overview

TaurusDB is an enterprise-grade cloud-native database service fully compatible with MySQL. It decouples compute from storage and uses Huawei-developed Data Function Virtualization (DFV), which scales to up to 128 TB per instance. With TaurusDB, there is no need to worry about data loss. It provides the high availability and superior performance of commercial databases at the price of open-source databases.

 **NOTE**

Data Function Virtualization (DFV) is a high-performance and high-reliability distributed storage system that is vertically integrated with databases. Storage clusters are deployed in pools to improve storage utilization.

This document describes how to use application programming interfaces (APIs) to perform operations on DB instances. For details about all supported operations, see [API Overview](#).

1.2 API Calling

TaurusDB supports Representational State Transfer (REST) APIs, allowing you to call APIs using HTTPS. For details about API calling, see [Calling APIs](#).

1.3 Endpoints

An endpoint is the **request address** for calling an API. Endpoints vary depending on services and regions. [Table 1-1](#) lists the endpoints provided by TaurusDB.

Table 1-1 TaurusDB endpoints

Product	Region Name	Region	Endpoint	Protocol
TaurusDB	CN North-Beijing4	cn-north-4	gaussdb.cn-north-4.myhuaweicloud.com	HTTPS
TaurusDB	CN North-Ulanqab1	cn-north-9	gaussdb.cn-north-9.myhuaweicloud.com	HTTPS
TaurusDB	CN East-Shanghai1	cn-east-3	gaussdb.cn-east-3.myhuaweicloud.com	HTTPS
TaurusDB	CN South-Guangzhou	cn-south-1	gaussdb.cn-south-1.myhuaweicloud.com	HTTPS
TaurusDB	CN South-Guangzhou-InvitationOnly	cn-south-4	gaussdb.cn-south-4.myhuaweicloud.com	HTTPS
TaurusDB	TR-Istanbul	tr-west-1	gaussdbformysql.tr-west-1.myhuaweicloud.com	HTTPS
TaurusDB	CN Southwest-Guiyang1	cn-southwest-2	gaussdb.cn-southwest-2.myhuaweicloud.com	HTTPS
TaurusDB	AP-Singapore	ap-southeast-3	gaussdb.ap-southeast-3.myhuaweicloud.com	HTTPS
TaurusDB	AP-Bangkok	ap-southeast-2	gaussdbformysql.ap-southeast-2.myhuaweicloud.com	HTTPS
TaurusDB	AP-Jakarta	ap-southeast-4	gaussdb.ap-southeast-4.myhuaweicloud.com	HTTPS
TaurusDB	CN North-Beijing2	cn-north-2	gaussdb.cn-north-2.myhuaweicloud.com	HTTPS
TaurusDB	CN-Hong Kong	ap-southeast-1	gaussdbformysql.ap-southeast-1.myhuaweicloud.com	HTTPS
TaurusDB	LA-Sao Paulo1	sa-brazil-1	gaussdb.sa-brazil-1.myhuaweicloud.com	HTTPS

Product	Region Name	Region	Endpoint	Protocol
TaurusDB	RU-Moscow2	ru-northwest-2	gaussdb.ru-northwest-2.myhuaweicloud.com	HTTPS
TaurusDB	AF-Johannesburg	af-south-1	gaussdb-mysql.af-south-1.myhuaweicloud.com	HTTPS
TaurusDB	CN North-Ulanqab-Auto1	cn-north-11	gaussdbformysql.cn-north-11.myhuaweicloud.com	HTTPS
TaurusDB	ME-Riyadh	me-east-1	gaussdb-mysql.me-east-1.myhuaweicloud.com	HTTPS
TaurusDB	CN North-Ulanqab201	cn-north-5	gaussdbformysql.cn-north-5.myhuaweicloud.com	HTTPS

1.4 Constraints

- Currently, APIs cannot be called for single-node instances.
- For more constraints, see API description.

1.5 Concepts

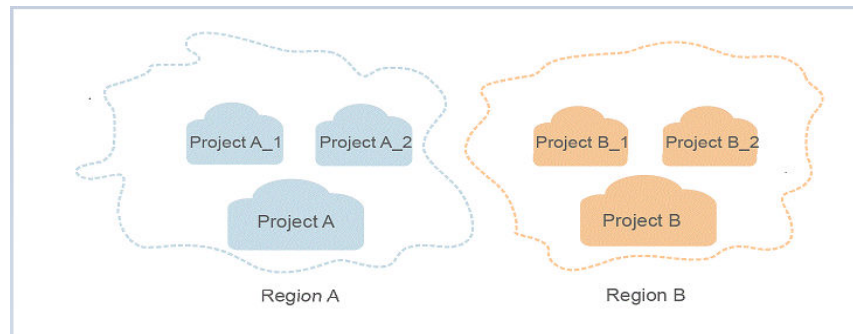
- Account
An account is created after your registration. The account has full access permissions for all of its cloud services and resources. It can be used to reset user passwords and grant user permissions. The account is a payment entity and should not be used directly to perform routine management. For security purposes, create users and grant them permissions for routine management.
- IAM User
An IAM user is created using an account to use cloud services. Each IAM user has its own identity credentials (password and access keys).
API authentication requires information such as the account, username, and password.
- Region
A region is a geographic area in which cloud resources are deployed. Availability zones (AZs) in the same region can communicate with each other over an intranet, while AZs in different regions are isolated from each other. Deploying cloud resources in different regions can better suit certain user requirements or comply with local laws or regulations.
- AZ

An AZ contains one or more physical data centers. Each AZ has independent cooling, fire extinguishing, moisture-proof, and electricity facilities. Within an AZ, computing, network, storage, and other resources are logically divided into multiple clusters. AZs within a region are interconnected using high-speed optical fibers to support cross-AZ high-availability systems.

- Project

A project corresponds to a region. Projects group and isolate resources (including compute, storage, and network resources) across physical regions. Users can be granted permissions in a default project to access all resources in the region associated with the project. For more refined access control, create subprojects under a project and purchase resources in the subprojects. Users can then be assigned permissions to access only specific resources in the subprojects.

Figure 1-1 Project isolating model



- Enterprise Project

Enterprise projects group and manage resources across regions. Resources in enterprise projects are logically isolated from each other. An enterprise project can contain resources in multiple regions, and resources can be directly transferred between enterprise projects.

For more information about enterprise projects and how to obtain enterprise project IDs, see [Enterprise Management User Guide](#).

2 API Overview

With TaurusDB APIs, you can query, set, and modify resource quotas.

Category	Description
DB Engine Version Queries	API used to query the version information of a specified DB engine
Database Specification Queries	API used to query the database specifications of a specified DB engine version
Instance Management	APIs used to create, reboot, and delete TaurusDB instances, and modify instance information
Backup Management	APIs used to create, configure, and delete TaurusDB backups
Parameter Template Management	APIs used to create, modify, replicate, compare, and delete TaurusDB parameter templates
Quota Management	APIs used to set and modify TaurusDB quotas
Database Proxy	APIs used to create a proxy instance, add proxy nodes, change the specifications of a proxy instance, and modify proxy instance information
Log Management	APIs used to enable, configure, and disable TaurusDB logs
Tag Management	APIs used to add and delete TaurusDB tags
Database User Management	APIs used to create, authorize, and delete TaurusDB database users, and modify database user information
Database Management	APIs used to create and delete TaurusDB databases, and modify database information

Category	Description
SQL Statement Concurrency Control	APIs used to enable, configure, and disable TaurusDB SQL statement concurrency control
Task Center	APIs used to query, cancel, and delete tasks in the TaurusDB task center
Intelligent Diagnosis	APIs used to query the number of instances whose metrics are abnormal and query instance information
HTAP (Standard Edition)	APIs used to create, reboot, and delete standard HTAP instances, and synchronize data
HTAP (Lightweight Edition)	APIs used to create, reboot, and delete lightweight HTAP instances, and synchronize data
Multi-tenancy	APIs used to query the status of multi-tenancy, and enable or disable multi-tenancy

3 Calling APIs

3.1 Making an API Request

This section describes the structure of a REST API, and uses the IAM API for [obtaining a user token](#) as an example to describe how to call an API. The obtained token is used to authenticate the calling of other APIs.

Request URI

A request URI consists of the following:

{URI-scheme}://{Endpoint}/{resource-path}?{query-string}

Although a request URI is included in a request header, most programming languages or frameworks require the request URI to be separately transmitted, rather than being conveyed in a request message.

Table 3-1 Parameters in a URI

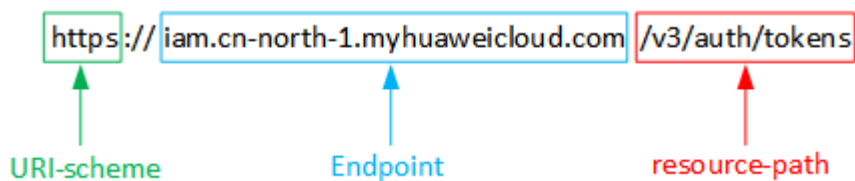
Parameter	Description
URI-scheme	Protocol used to transmit requests. All APIs use HTTPS.
Endpoint	Domain name or IP address of the server bearing the REST service. The endpoint varies between services in different regions. It can be obtained from Regions and Endpoints . For example, the endpoint of IAM in the CN North-Beijing1 region is iam.cn-north-1.myhuaweicloud.com .
resource-path	Access path of an API for performing a specified operation. Obtain the path from the URI of an API. For example, the resource-path of the API used to obtain a user token is /v3/auth/tokens .

Parameter	Description
query-string	Query parameter, which is optional. Ensure that a question mark (?) is included before each query parameter that is in the format of "Parameter name=Parameter value". For example, ?limit=10 indicates that a maximum of 10 data records will be displayed.

For example, to obtain an IAM token in the **CN North-Beijing1** region, obtain the endpoint (**iam.cn-north-1.myhuaweicloud.com**) for this region and the resource-path (**/v3/auth/tokens**) in the URI of the API used to **obtain a user token**. Then, construct the URI as follows:

```
https://iam.cn-north-1.myhuaweicloud.com/v3/auth/tokens
```

Figure 3-1 Example URI



NOTE

To simplify the URI display in this document, each API is provided only with a resource-path and a request method. The **URI-scheme** of all APIs is **HTTPS**, and the endpoints of all APIs in the same region are identical.

Request Methods

The HTTP protocol defines the following request methods that can be used to send a request to the server:

Table 3-2 HTTP methods

Method	Description
GET	Requests the server to return specified resources.
PUT	Requests the server to update specified resources.
POST	Requests the server to add resources or perform special operations.

For example, in the case of the API used to **obtain a user token**, the request method is POST. The request is as follows:

```
POST https://iam.cn-north-1.myhuaweicloud.com/v3/auth/tokens
```

Request Header

You can also add additional fields to a request, such as the fields required by a specified URI or an HTTP method. For example, to request for the authentication information, add **Content-Type**, which specifies the request body type.

Table 3-3 lists common request header fields.

Table 3-3 Common request headers

Name	Description	Mandatory	Example
Content-Type	Specifies the MIME type of the request body. You are advised to use the default value application/json . For APIs used to upload objects or images, the value can vary depending on the flow type.	Yes	application/json
Host	Specifies the requested server information, which can be obtained from the URL of the service API. The value is in the <i>hostname[:port]</i> format. If the port number is not specified, the default port is used. The default port number for https is 443 .	No This parameter is mandatory for AK/SK authentication.	code.test.com or code.test.com:443
Content-Length	Specifies the length of the request body. The unit is byte.	No	3495
X-Project-Id	Specifies the project ID. Obtain the project ID by following the instructions in Obtaining a Project ID .	No	e9993fc787d94b6c886cb aa340f9c0f4

Name	Description	Mandatory	Example
X-Auth-Token	<p>Specifies the user token.</p> <p>The user token is a response to the API used to obtain a user token. This API is the only one that does not require authentication.</p> <p>The value of X-Subject-Token in the response header is the token value.</p>	<p>No</p> <p>This parameter is mandatory for token authentication.</p>	<p>The following is part of an example token:</p> <p>MIIPAgYJKoZIhvcNAQc-Co...ggg1BBIINPXsidG9rZ</p>
X-Language	<p>Request language type. The default value is en-us.</p> <p>Values:</p> <ul style="list-style-type: none"> • en-us • zh-cn 	<p>No</p>	<p>en-us</p>

The API used to **obtain a user token** does not require authentication. Therefore, only the **Content-Type** field needs to be added to requests for calling the API. An example of such requests is as follows:

```
POST https://iam.cn-north-1.myhuaweicloud.com/v3/auth/tokens
Content-Type: application/json
```

(Optional) Request Body

This part is optional. The body of a request is often sent in a structured format (for example, JSON or XML) as specified in the **Content-Type** header field. If the request body contains full-width characters, these characters must be coded in UTF-8.

The request body varies between APIs. Some APIs do not require the request body, such as the APIs requested using the GET and DELETE methods.

In the case of the API used to **obtain a user token**, the request parameters and parameter description can be obtained from the API request. The following provides an example request with a body included. Replace **username**, **domainname**, ********* (login password), and **xxxxxxxxxxxxxxxxxxxx** (project name, such as cn-north-1) with actual values. It can be obtained from [Regions and Endpoints](#).

 NOTE

The **scope** parameter specifies where a token takes effect. You can set **scope** to an account or a project under an account. In the following example, the token takes effect only for the resources in a specified project. For more information about this API, see [Obtaining a User Token](#).

```
POST https://iam.cn-north-1.myhuaweicloud.com/v3/auth/tokens
Content-Type: application/json
```

```
{
  "auth": {
    "identity": {
      "methods": [
        "password"
      ],
      "password": {
        "user": {
          "name": "username",
          "password": "*****",
          "domain": {
            "name": "domainname"
          }
        }
      }
    },
    "scope": {
      "project": {
        "name": "xxxxxxxxxxxxxxxxxxxx"
      }
    }
  }
}
```

If all data required for the API request is available, you can send the request to call the API through [curl](#), [Postman](#), or coding. In the response to the API used to obtain a user token, **x-subject-token** is the desired user token. This token can then be used to authenticate the calling of other APIs.

3.2 Authentication

Requests for calling an API can be authenticated using either of the following methods:

- Token-based authentication: Requests are authenticated using a token.
- AK/SK-based authentication: Requests are authenticated by encrypting the request body using an AK/SK pair. Authentication using AK/SK is recommended because it is more secure than authentication using tokens.

Token-based Authentication

 NOTE

The validity period of a token is 24 hours. When using a token for authentication, cache it to prevent frequently calling the IAM API used to obtain a user token.

A token specifies temporary permissions in a computer system. During API authentication using a token, the token is added to requests to get permissions for calling the API.

When [calling an API to obtain a user token](#), you must set **auth.scope** in the request body to **project**.

```
{
  "auth": {
    "identity": {
      "methods": [
        "password"
      ],
      "password": {
        "user": {
          "name": "username",
          "password": "*****",
          "domain": {
            "name": "domainname"
          }
        }
      }
    },
    "scope": {
      "project": {
        "name": "xxxxxxx"
      }
    }
  }
}
```

In [Making an API Request](#), the process of calling the API used to **obtain a user token** is described.

After a token is obtained, add the **X-Auth-Token** header field must be added to requests to specify the token when calling other APIs. For example, if the token is **ABCDEFJ....**, **X-Auth-Token: ABCDEFJ....** can be added to a request as follows:

```
Content-Type: application/json
X-Auth-Token: ABCDEFJ....
```

AK/SK-based Authentication

NOTE

AK/SK-based authentication supports API requests with a body not larger than 12 MB. For API requests with a larger body, token-based authentication is recommended.

In AK/SK-based authentication, AK/SK is used to sign requests and the signature is then added to the requests for authentication.

- AK: access key ID, which is a unique identifier associated with a secret access key and is used in conjunction with a secret access key to sign requests cryptographically.
- SK: secret access key used in conjunction with an AK to sign requests cryptographically. It identifies a request sender and prevents the request from being modified.

In AK/SK-based authentication, you can use an AK/SK to sign requests based on the signature algorithm or use the signing SDK to sign requests. For details about how to sign requests or use the signing SDK, see [API Request Signing Guide](#).

NOTICE

The signing SDK is only used for signing requests and is different from the SDKs provided by services.

3.3 Response

Status Code

After sending a request, you will receive a response, including the status code, response header, and response body.

A status code is a group of digits ranging from 1xx to 5xx. It indicates the status of a response. For more information, see [Status Codes](#).

For example, if status code **201** is returned for calling the API used to [obtain a user token](#), the request is successful.

Response Header

Similar to a request, a response also has a header, for example, **Content-Type**.

Figure 3-2 shows the response header for the API used to [obtain a user token](#). The **x-subject-token** header field is the desired user token. This token can then be used to authenticate the calling of other APIs.

Figure 3-2 Header fields of the response to the request for obtaining a user token

```
connection → keep-alive
content-type → application/json
date → Tue, 12 Feb 2019 06:52:13 GMT
server → Web Server
strict-transport-security → max-age=31536000; includeSubdomains;
transfer-encoding → chunked
via → proxy A
x-content-type-options → nosniff
x-download-options → noopen
x-frame-options → SAMEORIGIN
x-iam-trace-id → 218d45ab-d674-4995-af3a-2d0255ba41b5
x-subject-token → MIIYXQVJKoZihvcNAQcCoIIYJCCGEoCAQExDTALBglghkgBZQMEAgEwgharBgkqhkiG9w0B8wGgghacBIIWmHsidG9rZW4iOnsiZXhwaXJlc19hdCI6IjIwMTktMTNUMC
fj3KJs6YgKnpVNRbW2eZ5eb78SZOkqjACgkklqO1wi4JlGzrpd18LGXK5tdfdq4lqHCYb8P4NaY0NYejcAgzJVeFYtLWT1GSO0zxKZmlQHq82HBqHdglZO9fuEbL5dMhdavj+33wEl
xHRCE9I87o+k9-
j+CMZSEB7bUGd5Uj6eRASXl1jipPEGA270g1FruooL6jagIFkNPQuFSOU8+uSsttVwRtNfsC+qTp22Rkd5MCqFGQ8LcuUx3a+9CMBnOintWW7oeRUVhVpxk8pxiX1wTEboX-
RzT6MUbpvGw-oPNFYxJECknoH3HRozv0vN--n5d6Nbxg==
x-xss-protection → 1; mode=block;
```

(Optional) Response Body

This part is optional. The body of a response is often returned in structured format (for example, JSON or XML) as specified in the **Content-Type** header field. The response body transfers content except the response header.

The following is part of the response body for the API used to [obtain a user token](#).

```
{
  "token": {
    "expires_at": "2019-02-13T06:52:13.855000Z",
```

```
"methods": [  
  "password"  
],  
"catalog": [  
  {  
    "endpoints": [  
      {  
        "region_id": "az-01",  
.....
```

If an error occurs during API calling, an error code and a message will be displayed. The following shows an error response body.

```
{  
  "error_code": "AS.0001",  
  "error_msg": "The format of message is error"  
}
```

In the response body, **error_code** is an error code, and **error_msg** provides information about the error.

4 APIs (Recommended)

4.1 DB Engine Version Queries

4.1.1 Querying Version Information About a DB Engine

Function

This API is used to query the version information of a specified DB engine. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/datastores/{database_name}

Table 4-1 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
database_name	Yes	String	DB engine. Its value is case-insensitive and can be: gaussdb-mysql .

Request Parameters

Table 4-2 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Response Parameters

Status code: 200

Table 4-3 Response body parameter

Parameter	Type	Description
datastores	Array of MysqlEngineVersionInfo objects	DB versions.

Table 4-4 MysqlEngineVersionInfo

Parameter	Type	Description
id	String	DB version ID. Its value is unique.
name	String	DB version number. Only the major version number with two digits is returned.
version	String	Compatible open-source DB version. A three-number open-source version is returned.
kernel_version	String	DB kernel version. A complete four-number version is returned.

Status code: 400**Table 4-5** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500**Table 4-6** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying version information about a TaurusDB instance

```
GET https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/datastores/gaussdb-mysql
```

Example Response

Status code: 200

Success.

```
{
  "datastores": [ {
    "id": "87620726-6802-46c0-9028-a8785e1f1921",
    "name": "8.0",
    "version": "8.0.22",
    "kernel_version": "2.0.28.18"
  } ]
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.2 Database Specification Queries

4.2.1 Querying Database Specifications

Function

This API is used to query the database specifications of a specified DB engine version. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/flavors/{database_name}

Table 4-7 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Explanation: Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID . Constraints: None Value range: The value can contain 32 characters. Only letters and digits are allowed. Default value: None
database_name	Yes	String	Explanation: DB engine name. Constraints: None Value range: gaussdb-mysql Default value: None

Table 4-8 Query parameters

Parameter	Mandatory	Type	Description
availability_zone_mode	Yes	String	<p>Explanation: AZ type.</p> <p>Constraints: None</p> <p>Value range:</p> <ul style="list-style-type: none"> • single: single AZ • multi: multiple AZs <p>Default value: single</p>
version_name	No	String	<p>Explanation: DB version number.</p> <p>Constraints: Currently, only MySQL 8.0 is supported.</p> <p>Value range: 8.0</p> <p>Default value: 8.0</p>
spec_code	No	String	<p>Explanation: Resource specification code. Example: gaussdb.mysql.xlarge.x86.4</p> <ul style="list-style-type: none"> • gaussdb.mysql indicates the product. • xlarge indicates the specifications (4 vCPUs). • x86 indicates the x86 architecture. • 4 indicates the ratio of vCPUs to memory is 1:4. <p>For more information, see Instance Specifications.</p> <p>Constraints: None</p> <p>Value range: None</p> <p>Default value: None</p>

Request Parameters

Table 4-9 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	<p>Explanation: User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the token value.</p> <p>Constraints: None</p> <p>Value range: None</p> <p>Default value: None</p>
X-Language	No	String	<p>Explanation: Request language type.</p> <p>Constraints: None</p> <p>Value range:</p> <ul style="list-style-type: none"> • en-us • zh-cn <p>Default value: en-us</p>

Response Parameters

Status code: 202

Table 4-10 Response body parameter

Parameter	Type	Description
flavors	Array of MysqlFlavors Info objects	<p>Explanation: Instance specifications.</p>

Table 4-11 MysqlFlavorsInfo

Parameter	Type	Description
vcpus	String	<p>Explanation: Number of vCPUs. For example, the value 1 indicates 1 vCPU.</p> <p>Value range: None</p>
ram	String	<p>Explanation: Memory size in GB.</p> <p>Value range: None</p>
type	String	<p>Explanation: CPU architecture.</p> <p>Value range:</p> <ul style="list-style-type: none"> • arm: exclusive Arm • x86: exclusive x86 • generalX86: general-purpose x86
id	String	<p>Explanation: Specification ID, which uniquely identifies a specification.</p> <p>Value range: None</p>
spec_code	String	<p>Explanation: Resource specification code. Its value is same as the value of spec_code. Example: gaussdb.mysql.xlarge.x86.4</p> <ul style="list-style-type: none"> • gaussdb.mysql indicates the product. • xlarge indicates the specifications (4 vCPUs). • x86 indicates the x86 architecture. • 4 indicates the ratio of vCPUs to memory is 1:4. <p>For more information, see Instance Specifications.</p> <p>Value range: None</p>
version_name	String	<p>Explanation: DB version number.</p> <p>Value range: 8.0</p>

Parameter	Type	Description
instance_mod e	String	Explanation: Instance type. Currently, only the cluster type is supported. Value range: Cluster
az_status	Map<String,String>	Explanation: Status of the specification in the AZ. Value range: <ul style="list-style-type: none"> • normal: The specification is available in the AZ. • unsupported: The specification is not supported. • sellout: The specification is sold out.

Status code: 400

Table 4-12 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-13 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying specific specifications of a TaurusDB instance

```
GET https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/flavors/gaussdb-mysql?
version_name=8.0&spec_code=gaussdb.mysql.xlarge.x86.4&availability_zone_mode=single
```

Example Response

Status code: 202

Success.

```
{
  "flavors": [ {
    "vcpus": "4",
    "ram": "16",
    "type": "x86",
    "id": "3169caaf-6c2f-41d5-aadd-c8fc3d83597e",
    "spec_code": "gaussdb.mysql.xlarge.x86.4",
    "instance_mode": "Cluster",
    "version_name": "8.0",
    "az_status": {
      "az1": "normal",
      "az2": "normal"
    }
  }
]
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.3 Instance Management

4.3.1 Creating a DB Instance

Function

This API is used to create a TaurusDB instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

POST /v3/{project_id}/instances

Table 4-14 URI parameter

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .

Request Parameters

Table 4-15 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Table 4-16 Request body parameters

Parameter	Mandatory	Type	Description
region	Yes	String	Region ID. The value cannot be empty. To obtain this value, see Regions and Endpoints .
name	Yes	String	DB instance name. Instances of the same type can have same names under the same tenant. The name must start with a letter and consist of 4 to 64 characters. Only letters (case-sensitive), digits, hyphens (-), and underscores (_) are allowed.
datastore	Yes	MysqlDatastoreInReq object	Database information.
mode	Yes	String	Instance type. Currently, only the cluster type is supported.

Parameter	Mandatory	Type	Description
flavor_ref	Yes	String	Specification code. For details, see spec_code in Table 5 in Querying Database Specifications .
vpc_id	Yes	String	VPC ID. To obtain this value, use either of the following methods: <ul style="list-style-type: none"> Method 1: Log in to the VPC console and view the VPC ID on the VPC details page. Method 2: See "Querying VPCs" in the <i>Virtual Private Cloud API Reference</i>.
subnet_id	Yes	String	Network ID. To obtain this value, use either of the following methods: <ul style="list-style-type: none"> Method 1: Log in to the VPC console and click the target subnet on the Subnets page. You can view the network ID on the displayed page. Method 2: See "Querying Subnets" in the <i>Virtual Private Cloud API Reference</i>.
password	Yes	String	Database password. The password consists of 8 to 32 characters and contains at least three types of the following: uppercase letters, lowercase letters, digits, and special characters ~!@#\$\$%^*_-=+?,()& You are advised to enter a strong password to improve security and prevent security risks such as brute force cracking. If you enter a weak password, the system automatically determines that the password is invalid.

Parameter	Mandatory	Type	Description
availability_zone_mode	Yes	String	AZ type. Values: <ul style="list-style-type: none"> • single: single AZ • multi: multiple AZs
slave_count	Yes	Integer	Number of read replicas. A maximum of nine read replicas can be created at a time.
charge_info	No	MysqlChargeInfo object	Billing mode, which is yearly/monthly or pay-per-use (default setting). Note: You cannot create yearly/monthly instances in a DeC.
security_group_id	No	String	Security group ID. If network ACL is enabled, this parameter cannot be specified. If network ACL is disabled, this parameter is mandatory. <ul style="list-style-type: none"> • Method 1: Log in to VPC console. Choose Access Control > Security Groups in the navigation pane on the left. On the displayed page, click the target security group. You can view the security group ID on the displayed page. • Method 2: See "Querying Security Groups" in the <i>Virtual Private Cloud API Reference</i>.
configuration_id	No	String	Parameter template ID. For details, see id in Table 5 in Querying Parameter Templates .
backup_strategy	No	MysqlBackupStrategy object	Automated backup policy.
time_zone	No	String	Time zone. The default time zone is UTC.

Parameter	Mandatory	Type	Description
master_availability_zone	No	String	Primary AZ ID. The value cannot be empty. To obtain this value, see Regions and Endpoints .
volume	No	MysqlVolume object	Volume information. This parameter is only available for yearly/monthly instances.
tags	No	Array of MysqlTags objects	Tag list. Instances are created based on tag keys and values. <ul style="list-style-type: none"> <i>{key}</i> indicates the tag key. It must be unique and cannot be empty. <i>{value}</i> indicates the tag value, which can be empty. To create instances with multiple tag keys and values, separate key-value pairs with commas (.). Up to 10 key-value pairs can be added.
lower_case_table_names	No	Integer	Whether table names are case sensitive. The default value is 1 . Values: <ul style="list-style-type: none"> 0: Table names are fixed and case-sensitive. 1: Table names are stored in lowercase and are case-insensitive.
enterprise_project_id	No	String	Enterprise project ID. This parameter is mandatory when the enterprise project is enabled.
dedicated_resource_id	No	String	Dedicated resource pool ID. This parameter is displayed only when the dedicated resource pool is enabled.
restore_point	No	MysqlRestorePoint object	Backup information.

Parameter	Mandatory	Type	Description
tde_info	No	MysqlTdeInfo object	TDE configuration. The AES 256 and SM4 algorithms are supported. TDE is in the open beta test (OBT) phase. To use it, submit a service ticket.

Table 4-17 MysqlDatastoreInReq

Parameter	Mandatory	Type	Description
type	Yes	String	DB engine. Currently, only gaussdb-mysql is supported.
version	Yes	String	DB version. A two-number major version is returned. For details about how to obtain the version, see the name field returned by the Querying Version Information About a DB Engine .
kernel_version	No	String	DB kernel version. If you need to specify a kernel version, contact customer service. A complete 4-digit kernel version is returned. For details about how to obtain the value, see the kernel_version field returned by Querying Version Information About a DB Engine .

Table 4-18 MysqlChargeInfo

Parameter	Mandatory	Type	Description
charge_mode	Yes	String	<p>Billing mode.</p> <p>Values:</p> <ul style="list-style-type: none"> • prePaid: indicates the yearly/monthly billing mode. • postPaid: indicates the pay-per-use billing mode. <p>Enumerated values:</p> <ul style="list-style-type: none"> • prePaid • postPaid
period_type	No	String	<p>Subscription period.</p> <p>Values:</p> <ul style="list-style-type: none"> • month: The service is subscribed by month. • year: The service is subscribed by year. <p>NOTE This parameter is valid and mandatory if charge_mode is set to prePaid.</p> <p>Enumerated values:</p> <ul style="list-style-type: none"> • month • year
period_num	No	Integer	<p>Subscription duration. This parameter is valid and mandatory if charge_mode is set to prePaid.</p> <p>Values:</p> <ul style="list-style-type: none"> • When period_type is set to month, the parameter value ranges from 1 to 9. • When period_type is set to year, the parameter value ranges from 1 to 3.

Parameter	Mandatory	Type	Description
is_auto_renew	No	String	<p>Whether automatic renewal is enabled for yearly/monthly DB instances. The renewal period is the same as the original period and the order will be automatically paid during the subscription renewal.</p> <ul style="list-style-type: none"> • true: indicates that automatic renewal is enabled. • false: indicates that automatic renewal is disabled. The default value is false.
is_auto_pay	No	String	<p>Whether the order will be automatically paid after yearly/monthly instances are created. This parameter does not affect the payment method of automatic renewal.</p> <ul style="list-style-type: none"> • true: indicates the order will be automatically paid. • false: indicates the order will be manually paid. The default value is false.

Table 4-19 MysqlBackupStrategy

Parameter	Mandatory	Type	Description
start_time	Yes	String	<p>Automated backup start time. The automated backup will be triggered within one hour after the time specified by this parameter.</p> <p>The value cannot be empty. It must be a valid value in the "hh:mm-HH:MM" format. The current time is in the UTC format.</p> <ul style="list-style-type: none"> The HH value must be 1 greater than the hh value. The values of mm and MM must be the same and must be set to 00. <p>Example value: 21:00-22:00</p>
keep_days	No	String	<p>Retention period of automated backups.</p> <p>Value range: 1-732.</p>

Table 4-20 MysqlVolume

Parameter	Mandatory	Type	Description
size	Yes	String	<p>Disk size. The default value is 10 GB.</p> <p>Value range: 10-128000. The value must be a multiple of 10.</p>

Table 4-21 MysqlTags

Parameter	Mandatory	Type	Description
key	Yes	String	Tag key. It contains a maximum of 36 Unicode characters. The value cannot be an empty string, a space, or left blank. Only uppercase letters, lowercase letters, digits, hyphens (-), and underscores (_) are allowed.
value	Yes	String	Tag value. It contains a maximum of 43 Unicode characters. It can be an empty string. Only uppercase letters, lowercase letters, digits, periods (.), hyphens (-), and underscores (_) are allowed.

Table 4-22 MysqlRestorePoint

Parameter	Mandatory	Type	Description
source_instance_id	Yes	String	Source instance ID.
restore_time	No	Long	Point in time that data is restored to.
backup_id	No	String	Backup file ID.
type	No	String	Backup type. If this parameter is left blank, backup_id cannot be left blank and data is restored using backup files by default. Values: <ul style="list-style-type: none"> • backup: indicates that data is restored using backup files. • timestamp: indicates that data is restored to a point in time.

Table 4-23 MysqlTdeInfo

Parameter	Mandatory	Type	Description
enable_tde	Yes	Boolean	Whether to enable TDE.
encryption_type	Yes	String	TDE algorithm. The AES 256 and SM4 algorithms are supported.

Response Parameters

Status code: 201

Table 4-24 Response body parameters

Parameter	Type	Description
instance	MysqlInstanceResponse object	DB instance information.
job_id	String	ID of the task for creating a DB instance. This parameter is returned only when pay-per-use DB instances are created.
order_id	String	Order ID. This parameter is returned only when yearly/monthly instances are created.

Table 4-25 MysqlInstanceResponse

Parameter	Type	Description
id	String	DB instance ID, which is compliant with the UUID format.
name	String	DB instance name. This parameter specifies the name of an instance.
status	String	DB instance status.
datastore	MysqlDatastore object	Database information.
mode	String	DB instance type. Currently, only the cluster type is supported.
configuration_id	String	Parameter template ID.
port	String	Database port.

Parameter	Type	Description
backup_strategy	MysqlBackupStrategy object	Automated backup policy.
enterprise_project_id	String	Enterprise project ID.
region	String	Region ID, which is the same as the request parameter.
availability_zone_mode	String	AZ mode, which is the same as the request parameter.
master_availability_zone	String	Primary AZ ID.
vpc_id	String	VPC ID, which is the same as the request parameter.
security_group_id	String	Security group ID, which is the same as the request parameter.
subnet_id	String	Subnet ID, which is the same as the request parameter.
flavor_ref	String	Specification code, which is the same as the request parameter.
charge_info	MysqlChargeInfo object	Billing mode, which is yearly/monthly or pay-per-use. By default, pay-per-use is used.
volume	MysqlVolumeResp object	Volume information. This parameter is returned when a yearly/monthly DB instance is created.

Table 4-26 MysqlDatastore

Parameter	Type	Description
type	String	DB engine. Currently, only gaussdb-mysql is supported.
version	String	DB version. A two-number major version is returned. For details about how to obtain the version, see the name field returned by the Querying Version Information About a DB Engine .

Parameter	Type	Description
kernel_version	String	DB kernel version. A complete four-number kernel version is returned. For details about how to obtain the value, see the kernel_version field returned by Querying Version Information About a DB Engine .

Table 4-27 MysqlBackupStrategy

Parameter	Type	Description
start_time	String	Automated backup start time. The automated backup will be triggered within one hour after the time specified by this parameter. The value cannot be empty. It must be a valid value in the "hh:mm-HH:MM" format. The current time is in the UTC format. 1. The HH value must be 1 greater than the hh value. 2. The values of mm and MM must be the same and must be set to 00 .
keep_days	String	Automated backup retention days. Value range: 1-732.

Table 4-28 MysqlChargeInfo

Parameter	Type	Description
charge_mode	String	Billing mode. Values: <ul style="list-style-type: none"> ● prePaid: indicates the yearly/monthly billing mode. ● postPaid: indicates the pay-per-use billing mode. Enumerated values: <ul style="list-style-type: none"> ● prePaid ● postPaid

Parameter	Type	Description
period_type	String	<p>Subscription period.</p> <p>Values:</p> <ul style="list-style-type: none"> ● month: The service is subscribed by month. ● year: The service is subscribed by year. <p>NOTE This parameter is available and mandatory only when charge_mode is set to prePaid.</p> <p>Enumerated values:</p> <ul style="list-style-type: none"> ● month ● year
period_num	Integer	<p>This parameter is available and mandatory only when charge_mode is set to prePaid.</p> <p>Values:</p> <ul style="list-style-type: none"> ● When period_type is set to month, the parameter value ranges from 1 to 9. ● When period_type is set to year, the parameter value ranges from 1 to 3.
is_auto_renew	String	<p>Whether automatic renewal is enabled for yearly/monthly DB instances. The renewal period is the same as the original period and the order will be automatically paid during the subscription renewal.</p> <ul style="list-style-type: none"> ● true: indicates that automatic renewal is enabled. ● false: indicates that automatic renewal is disabled. The default value is false.
is_auto_pay	String	<p>Whether the order will be automatically paid after yearly/monthly instances are created. This parameter does not affect the payment method of automatic renewal.</p> <ul style="list-style-type: none"> ● true: indicates the order will be automatically paid from your account. The default value is true. ● false: indicates the order will be manually paid.

Table 4-29 MysqlVolumeResp

Parameter	Type	Description
size	Integer	Storage space in GB. Value range: 10–128000. The value must be a multiple of 10.

Status code: 400

Table 4-30 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-31 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

NOTE

The value of **region** is used as an example.

- Creating a DB instance billed at a pay-per-use basis (An automated backup is created during 08:00-09:00.)

POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances

```
{
  "name": "gaussdb-mysql-instance1",
  "region": "br-iaas-odin1",
  "charge_info": {
    "charge_mode": "postPaid"
  },
  "datastore": {
    "type": "gaussdb-mysql",
    "version": "8.0"
  },
  "mode": "Cluster",
  "flavor_ref": "gaussdb.mysql.xlarge.arm.4",
  "vpc_id": "3cedfc54-b105-4652-a4e0-847b11576b58",
  "subnet_id": "c1cfa53c-65d3-431e-8552-326bf310c7ad",
  "security_group_id": "fc577a1a-f202-424a-977f-24faec3fdd55",
  "configuration_id": "43570e0de32e40c5a15f831aa5ce4176pr07",
  "password": "*****",
}
```

```
"backup_strategy" : {
  "start_time" : "08:00-09:00"
},
"availability_zone_mode" : "single",
"slave_count" : 1,
"enterprise_project_id" : 0
}
```

- Restoring data to a new pay-per-use DB instance using backups

POST <https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances>

```
{
  "name" : "gaussdb-mysql-instance2",
  "region" : "br-iaas-odin1",
  "charge_info" : {
    "charge_mode" : "postPaid"
  },
  "datastore" : {
    "type" : "gaussdb-mysql",
    "version" : "8.0"
  },
  "mode" : "Cluster",
  "flavor_ref" : "gaussdb.mysql.xlarge.arm.4",
  "vpc_id" : "3cedfc54-b105-4652-a4e0-847b11576b58",
  "subnet_id" : "c1cfa53c-65d3-431e-8552-326bf310c7ad",
  "security_group_id" : "fc577a1a-f202-424a-977f-24faec3fdd55",
  "configuration_id" : "43570e0de32e40c5a15f831aa5ce4176pr07",
  "password" : "*****",
  "backup_strategy" : {
    "start_time" : "08:00-09:00"
  },
  "availability_zone_mode" : "single",
  "slave_count" : 1,
  "enterprise_project_id" : 0,
  "restore_point" : {
    "source_instance_id" : "7033e7c3cf93438797d44ad7ae0a7d95in07",
    "backup_id" : "7ffbf305376b4cbea0ae491257b6aaf9br07",
    "type" : "backup"
  }
}
```

- Restoring data to a new pay-per-use instance through PITR

POST <https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances>

```
{
  "name" : "gaussdb-mysql-instance3",
  "region" : "br-iaas-odin1",
  "charge_info" : {
    "charge_mode" : "postPaid"
  },
  "datastore" : {
    "type" : "gaussdb-mysql",
    "version" : "8.0"
  },
  "mode" : "Cluster",
  "flavor_ref" : "gaussdb.mysql.xlarge.arm.4",
  "vpc_id" : "3cedfc54-b105-4652-a4e0-847b11576b58",
  "subnet_id" : "c1cfa53c-65d3-431e-8552-326bf310c7ad",
  "security_group_id" : "fc577a1a-f202-424a-977f-24faec3fdd55",
  "configuration_id" : "43570e0de32e40c5a15f831aa5ce4176pr07",
  "password" : "xxxxx",
  "backup_strategy" : {
    "start_time" : "08:00-09:00"
  },
  "availability_zone_mode" : "single",
  "slave_count" : 1,
  "enterprise_project_id" : 0,
  "restore_point" : {
    "source_instance_id" : "7033e7c3cf93438797d44ad7ae0a7d95in07",
    "restore_time" : 1673852043000,
    "type" : "timestamp"
  }
}
```

```
}  
}
```

Example Response

Status code: 201

NOTE

The values of **region** and **master_availability_zone** are used as examples.

Success.

```
{  
  "instance": {  
    "id": "5eebbb4c0f9f4a99b42ed1b6334569aain07",  
    "name": "gaussdb-mysql-instance1",  
    "status": "BUILD",  
    "region": "br-iaas-odin1",  
    "charge_info": {  
      "charge_mode": "postPaid"  
    },  
    "datastore": {  
      "type": "gaussdb-mysql",  
      "version": "8.0"  
    },  
    "mode": "Cluster",  
    "port": "3306",  
    "enterprise_project_id": 0,  
    "flavor_ref": "gaussdb.mysql.xlarge.arm.4",  
    "vpc_id": "3cedfc54-b105-4652-a4e0-847b11576b58",  
    "subnet_id": "c1cfa53c-65d3-431e-8552-326bf310c7ad",  
    "security_group_id": "fc577a1a-f202-424a-977f-24faec3fdd55",  
    "configuration_id": "43570e0de32e40c5a15f831aa5ce4176pr07",  
    "backup_strategy": {  
      "start_time": "08:00-09:00",  
      "keep_days": 7  
    },  
    "availability_zone_mode": "single"  
  },  
  "job_id": "dff1d289-4d03-4942-8b9f-463ea07c000d"  
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.3.2 Rebooting a DB Instance

Function

This API is used to reboot a DB instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

POST /v3/{project_id}/instances/{instance_id}/restart

Table 4-32 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-33 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Table 4-34 Request body parameters

Parameter	Mandatory	Type	Description
delay	No	Boolean	Whether the instance will be rebooted with a delay. <ul style="list-style-type: none"> true: The instance will be rebooted during the specified maintenance window. false (default value): The instance will be rebooted immediately.

Response Parameters

Status code: 200

Table 4-35 Response body parameter

Parameter	Type	Description
job_id	String	Task ID.

Status code: 400

Table 4-36 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-37 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Rebooting a TaurusDB instance in the maintenance window

```
POST https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/instances/096c0fc43e804757b59946b80dc27f8bin07/restart
{
  "delay": true
}
```

Example Response

Status code: 200

Success.

```
{
  "job_id" : "e0fbbfc8-1ac4-4721-b9e9-7dd685c5bdd7"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.3.3 Deleting/Unsubscribing from a DB Instance

Function

This API is used to delete a DB instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

DELETE /v3/{project_id}/instances/{instance_id}

Table 4-38 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-39 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Response Parameters

Status code: 200

Table 4-40 Response body parameters

Parameter	Type	Description
job_id	String	Task ID.
order_id	String	Order ID. This parameter is returned only for yearly/monthly instances.

Status code: 400

Table 4-41 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-42 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

- Deleting a pay-per-use DB instance
DELETE https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/
096c0fc43e804757b59946b80dc27f8bin07
- Unsubscribe from a yearly/monthly DB instance
DELETE https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/
096c0fc43e804757b59946b80dc27f8bin07

Example Response

Status code: 200

Success.

- Pay-per-use DB instance
{
 "job_id" : "04efe8e2-9255-44ae-a98b-d87cae411890"
}
- Yearly/monthly DB instance
{
 "job_id" : "04efe8e2-9255-44ae-a98b-d87cae411890",
 "order_id" : "CS2305230939BMXV8"
}

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.3.4 Creating a Read Replica

Function

This API is used to create a read replica. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

POST /v3/{project_id}/instances/{instance_id}/nodes/enlarge

Table 4-43 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-44 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Table 4-45 Request body parameters

Parameter	Mandatory	Type	Description
priorities	Yes	Array of integers	Failover priority of a read replica. Failover priority ranges from 1 for the first priority to 16 for the last priority. This priority determines the order in which read replicas are promoted when recovering from a primary node failure. Read replicas with the same priority have a same probability of being promoted to the new primary node. You can configure a failover priority for up to 9 read replicas, and the default priority for the remaining read replicas is -1, indicating these read replicas cannot be promoted to primary. You can change the failover priority of a read replica.
is_auto_pay	No	String	Whether the order will be automatically paid after yearly/monthly instances are created. This parameter does not affect the payment method of automatic renewal. <ul style="list-style-type: none"> ● true: indicates the order will be automatically paid from your account. The default value is true. ● false: indicates the order will be manually paid.

Parameter	Mandatory	Type	Description
availability_zones	No	Array of strings	<p>AZ. You can specify an AZ to create a read replica. If this parameter is not specified, an AZ is automatically assigned by default.</p> <p>The function is in the open beta test (OBT) phase. To use it, submit a service ticket.</p> <p>To obtain the value, see the key availability_zone in az_status of Querying Database Specifications.</p> <p>Note: Creating a read replica in a specified AZ may fail due to insufficient resources.</p>

Response Parameters

Status code: 201

Table 4-46 Response body parameters

Parameter	Type	Description
instance_id	String	Instance ID.
node_names	Array of strings	Node names.
job_id	String	ID of the task for creating a read replica. This parameter is returned only when a pay-per-use read replica is created.
order_id	String	Order ID. This parameter is returned when yearly/monthly read replicas are created.

Status code: 400

Table 4-47 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-48 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Creating a read replica for a DB instance

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/
ba62a0b83a1b42bfab275829d86ac0fdin07/nodes/enlarge
{
  "priorities": [ 1, 2 ]
}
```

Example Response

Status code: 201

Success.

```
{
  "instance_id": "ba62a0b83a1b42bfab275829d86ac0fdin07",
  "node_names": [ "gauss-ccf5_node03" ],
  "job_id": "dff1d289-4d03-4942-8b9f-463ea07c000d"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.3.5 Deleting or Unsubscribing from a Read Replica

Function

This API is used to delete a read replica. For multi-AZ deployment, the primary node and remaining read replicas must be located in different AZs after read replicas are deleted. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

```
DELETE /v3/{project_id}/instances/{instance_id}/nodes/{node_id}
```

Table 4-49 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.
node_id	Yes	String	Node ID, which is compliant with the UUID format.

Request Parameters

Table 4-50 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Response Parameters

Status code: 200

Table 4-51 Response body parameters

Parameter	Type	Description
job_id	String	Task ID.
order_id	String	Order ID. This parameter is returned only for yearly/monthly instances.

Status code: 400

Table 4-52 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-53 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

- Deleting a read replica of a pay-per-use DB instance
 DELETE https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/3d39c18788b54a919bab633874c159dfin01/nodes/096c0fc43e804757b59946b80dc27f8bin07
- Unsubscribing from a read replica of a yearly/monthly DB instance
 DELETE https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/3d39c18788b54a919bab633874c159dfin01/nodes/096c0fc43e804757b59946b80dc27f8bin07

Example Response

Status code: 200

Success.

- Pay-per-use DB instance

```
{
  "job_id" : "04efe8e2-9255-44ae-a98b-d87cae411890"
}
```
- Yearly/monthly DB instance

```
{
  "job_id" : "04efe8e2-9255-44ae-a98b-d87cae411890",
  "order_id" : "CS2305230939BMXV8"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.3.6 Scaling up Storage of a Yearly/Monthly DB Instance

Function

This API is used to scale up the storage of a yearly/monthly DB instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

POST /v3/{project_id}/instances/{instance_id}/volume/extend

Table 4-54 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-55 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Table 4-56 Request body parameters

Parameter	Mandatory	Type	Description
size	Yes	Integer	Storage space after scaling. The initial minimum storage of a yearly/monthly instance is 10 GB. The new storage must be a multiple of 10 and greater than the used storage. The maximum storage is 128,000 GB. The storage must be at least 20 GB during scale-up. The storage must be at least 10 GB during scale-down.
is_auto_pay	No	String	Whether the order will be automatically paid. <ul style="list-style-type: none"> • true: indicates the order will be automatically paid from your account. The default value is true. • false: indicates the order will be manually paid.

Response Parameters

Status code: 201

Table 4-57 Response body parameters

Parameter	Type	Description
size	Integer	New storage in GB.
order_id	String	Order ID.

Status code: 400

Table 4-58 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-59 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Scaling up the storage of a yearly/monthly DB instance to 50 GB

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/
ba62a0b83a1b42bfab275829d86ac0fdin07/volume/extend
{
  "size" : 50
}
```

Example Response

Status code: 201

Success.

```
{
  "size" : 50,
  "order_id" : "CS2001221129LVGUU"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.3.7 Changing a DB Instance Name

Function

This API is used to change a DB instance name. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

PUT /v3/{project_id}/instances/{instance_id}/name

Table 4-60 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-61 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Table 4-62 Request body parameters

Parameter	Mandatory	Type	Description
name	Yes	String	Instance name. Instances of the same type can have same names under the same tenant. The name must start with a letter and consist of 4 to 64 characters. Only letters (case-sensitive), digits, hyphens (-), and underscores (_) are allowed.

Parameter	Mandatory	Type	Description
is_modify_node_name	No	String	Whether to change node names synchronously. The value can be true or false . The default value is true .

Response Parameters

Status code: 200

Table 4-63 Response body parameter

Parameter	Type	Description
job_id	String	Task ID for changing a DB instance name.

Status code: 400

Table 4-64 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-65 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Changing the instance name to **gaussdb-name**

```
PUT https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/
ba62a0b83a1b42bfab275829d86ac0fdin07/name
{
  "name" : "gaussdb-name"
}
```


Example Response

Status code: 200

Success.

```
{  
  "job_id" : "0f6b6a9e-bd39-4e95-9374-e4d134e5a3d1"  
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.3.8 Resetting a Database Password

Function

This API is used to reset a database password. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

POST /v3/{project_id}/instances/{instance_id}/password

Table 4-66 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-67 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Table 4-68 Request body parameters

Parameter	Mandatory	Type	Description
password	Yes	String	Database password. Value: The password consists of 8 to 32 characters and contains at least three types of the following: uppercase letters, lowercase letters, digits, and special characters <code>~!@#\$\$%^*_-=+?,()&</code> NOTE You are advised to enter a strong password to improve security and prevent security risks such as brute force cracking. If you enter a weak password, the system automatically determines that the password is invalid.

Response Parameters

Status code: 400

Table 4-69 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-70 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Resetting a database password

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/
ba62a0b83a1b42bfab275829d86ac0fdin07/password
{
  "password" : "Test_345612"
}
```

Example Response

None

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.3.9 Changing DB Instance Specifications

Function

This API is used to change DB instance specifications. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

POST /v3/{project_id}/instances/{instance_id}/action

Table 4-71 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-72 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Table 4-73 Request body parameters

Parameter	Mandatory	Type	Description
resize_flavor	Yes	MysqlResizeFlavor object	Specification change information.

Parameter	Mandatory	Type	Description
is_auto_pay	No	String	<p>Whether the order will be automatically paid when the specifications of yearly/monthly instances are changed.</p> <ul style="list-style-type: none"> • true: indicates the order will be automatically paid from your account. The default value is true. • false: indicates the order will be manually paid.

Table 4-74 MysqlResizeFlavor

Parameter	Mandatory	Type	Description
spec_code	Yes	String	Specification code.

Response Parameters

Status code: 200

Table 4-75 Response body parameters

Parameter	Type	Description
job_id	String	Job ID for changing DB instance specifications. This parameter is returned only when you change the specifications of a pay-per-use DB instance.
order_id	String	Order ID. This parameter is returned only when DB instances are billed at a yearly/monthly basis.

Status code: 400

Table 4-76 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-77 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Changing the specifications of a DB instance to 4 vCPUs and 32 GB memory

```
{
  "resize_flavor" : {
    "spec_code" : "gaussdb.mysql.xlarge.arm.8"
  }
}
```

Example Response

Status code: 200

Success.

```
{
  "job_id" : "dff1d289-4d03-4942-8b9f-463ea07c000d"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.3.10 Querying Dedicated Resource Pools

Function

This API is used to obtain information about all dedicated resource pools you created. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/dedicated-resources

Table 4-78 URI parameter

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .

Table 4-79 Query parameters

Parameter	Mandatory	Type	Description
offset	No	Integer	Index offset. If offset is set to <i>N</i> , the resource query starts from the <i>N</i> +1 piece of data. The value is 0 by default, indicating that the query starts from the first piece of data. The value cannot be a negative number.
limit	No	Integer	Number of records to be queried. The default value is 100 . The value must be a positive integer. The minimum value is 1 and the maximum value is 100 .

Request Parameters

Table 4-80 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Response Parameters

Status code: 200

Table 4-81 Response body parameters

Parameter	Type	Description
resources	Array of DedicatedResource objects	Dedicated resource pool information.
total_count	Integer	Number of dedicated resource pools.

Table 4-82 DedicatedResource

Parameter	Type	Description
id	String	ID of the dedicated resource pool.
resource_name	String	Name of the dedicated resource pool.
engine_name	String	DB engine.
architecture	String	CPU architecture.
status	String	Status of the dedicated resource pool. Values: <ul style="list-style-type: none"> ● NORMAL: The dedicated resource pool is normal. ● BUILDING: The dedicated resource pool is being built. ● EXTENDING: The dedicated resource pool is being scaled out. ● DELETED: The dedicated resource pool is deleted. Enumerated values: <ul style="list-style-type: none"> ● NORMAL ● BUILDING ● EXTENDING ● DELETED
capacity	DedicatedResourceCapacity object	Capacity of the dedicated resource pool.
availability_zone	Array of strings	AZ where the dedicated resource pool is deployed.

Table 4-83 DedicatedResourceCapacity

Parameter	Type	Description
ram	Integer	Memory size in GB.
volume	Long	Disk capacity in GB.
vcpus	Integer	Number of vCPUs.

Status code: 400

Table 4-84 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-85 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying dedicated resource pools

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/dedicated-resources
```

Example Response

Status code: 200

Success.

```
{
  "resources": [ {
    "id": "1d07f7ba-f140-46a7-b002-58ba22ee6ff3",
    "resource_name": "testdcc",
    "engine_name": "gaussdb-mysql",
    "architecture": "ARM",
    "status": "NORMAL",
    "capacity": {
      "ram": 256,
      "volume": 10000000,
      "vcpus": 64
    }
  }
],
}
```

```
"availability_zone" : [ "az1xahz" ]
}]
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.3.11 Querying Dedicated Resources

Function

This API is used to query dedicated resources. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/dedicated-resource/{dedicated_resource_id}

Table 4-86 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
dedicated_resource_id	Yes	String	ID of the dedicated resource pool. To obtain this value, see Querying Dedicated Resource Pools .

Request Parameters

Table 4-87 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Response Parameters

Status code: 200

Table 4-88 Response body parameters

Parameter	Type	Description
id	String	ID of the dedicated resource pool.
resource_name	String	Name of the dedicated resource pool.
engine_name	String	Database name.
availability_zone_ids	Array of strings	AZs.
architecture	String	CPU architecture.
status	String	Status of the dedicated resource pool.
dedicated_compute_info	DedicatedComputeInfo object	Compute resource information.
dedicated_storage_info	DedicatedStorageInfo object	Storage resource information.

Table 4-89 DedicatedComputeInfo

Parameter	Type	Description
vcpus_total	Integer	Total vCPUs in the dedicated resource pool.
vcpus_used	Integer	Used vCPUs in the dedicated resource pool.
ram_total	Integer	Total memory size of the dedicated resource pool, in GB.
ram_used	Integer	Used memory size of the dedicated resource pool, in GB.
spec_code	String	Compute resource specification code of the dedicated resource pool.
host_num	Integer	Number of compute hosts in the dedicated resource pool.

Table 4-90 DedicatedStorageInfo

Parameter	Type	Description
spec_code	String	Storage resource specification code of the dedicated resource pool.
host_num	Integer	Number of storage hosts in the dedicated resource pool.

Status code: 400

Table 4-91 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-92 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying dedicated resources

```
GET https://{endpoint}/v3/058497e1c100d3eb2f3cc01160616934/dedicated-resource/6e097c33-d6b9-4ca5-83cb-6cc79dcf4f06
```

Example Response

Status code: 200

Success.

```
{
  "id": "e097c33-d6b9-4ca5-83cb-6cc79dcf4f06",
  "resource_name": "test_dcc",
  "engine_name": "taurus",
  "availability_zone_ids": [ "az1xahz", "az2xahz" ],
  "architecture": "ARM",
  "status": "normal",
  "dedicated_compute_info": {
    "vcpus_total": 128,
    "vcpus_used": 64,
    "ram_total": 512,
    "ram_used": 256,
    "spec_code": "gaussdb.mysql.c6.host",
    "host_num": 1
  },
  "dedicated_storage_info": {
    "spec_code": "gaussdb.mysql.dfvpool.30tb.host",
    "host_num": 1
  }
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.3.12 Configuring the Monitoring By Seconds Function

Function

This API is used to configure the Monitoring By Seconds function for instances. You can set the monitoring interval to 1 second or 5 seconds to view the metric values. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

```
PUT /v3/{project_id}/instances/{instance_id}/monitor-policy
```

Table 4-93 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID.

Request Parameters

Table 4-94 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Table 4-95 Request body parameters

Parameter	Mandatory	Type	Description
monitor_switch	Yes	Boolean	Whether to enable Monitoring by Seconds. <ul style="list-style-type: none">• true: enabled• false: disabled

Parameter	Mandatory	Type	Description
period	No	Integer	Collection period. This parameter is available only when monitor_switch is set to true . The default value is 5s . This parameter is not displayed when monitor_switch is set to false . Values: <ul style="list-style-type: none"> • 1: The collection period is 1s. • 5: The collection period is 5s. Enumerated values: <ul style="list-style-type: none"> • 1 • 5

Response Parameters

Status code: 200

Table 4-96 Response body parameters

Parameter	Type	Description
job_id	String	Taskflow ID for modifying Monitoring by Seconds

Status code: 400

Table 4-97 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-98 Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error message.

Example Request

Enabling Monitoring by Seconds and changing its collection period to 1s

```
PUT https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/61a4ea66210545909d74a05c27a7179ein07/monitor-policy
{
  "monitor_switch" : true,
  "period" : 1
}
```

Example Response

Status code: 200

Success.

```
{
  "job_id" : "6b7dd5d4-4590-4f14-b164-a8737ce071d5"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.3.13 Querying the Configuration of Monitoring by Seconds

Function

This API is used to query the configuration of Monitoring by Seconds. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/instances/{instance_id}/monitor-policy

Table 4-99 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID.

Request Parameters

Table 4-100 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Response Parameters

Status code: 200

Table 4-101 Response body parameters

Parameter	Type	Description
monitor_switch	Boolean	Whether to enable Monitoring by Seconds. <ul style="list-style-type: none"> • true: enabled • false: disabled
period	Integer	Collection period. This parameter is returned only when monitor_switch is set to true . <ul style="list-style-type: none"> • 1: The collection period is 1s. • 5: The collection period is 5s.

Status code: 400**Table 4-102** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500**Table 4-103** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying the status of Monitoring by Seconds for a DB instance

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
61a4ea66210545909d74a05c27a7179ein07/monitor-policy
```

Example Response

Status code: 200

Success.

```
{  
  "monitor_switch" : true,  
  "period" : "1"  
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.3.14 Rebooting a Node

Function

This API is used to reboot a node. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

POST /v3/{project_id}/instances/{instance_id}/nodes/{node_id}/restart

Table 4-104 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID.
node_id	Yes	String	Node ID.

Request Parameters

Table 4-105 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Table 4-106 Request body parameters

Parameter	Mandatory	Type	Description
delay	No	Boolean	Whether the node is rebooted immediately or in the specified maintenance window. <ul style="list-style-type: none"> • true: The node is rebooted in the specified maintenance window. • false (default value): The node is rebooted immediately. It is a default value.

Response Parameters

Status code: 200

Table 4-107 Response body parameter

Parameter	Type	Description
job_id	String	Task ID.

Status code: 400

Table 4-108 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-109 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Rebooting a node of a DB instance

```
POST https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/af315b8e6aaa41799bd9a31f2de15abcin07/nodes/f0d5f01f04964f36a545ad85e4e9cfe9no07/restart
{
  "delay": false
}
```

Example Response

Success.

```
{
  "job_id" : "6b7dd5d4-4590-4f14-b164-a8737ce071d5"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.3.15 Upgrading the Kernel Version of a DB Instance

Function

This API is used to upgrade the kernel version of a DB instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

POST /v3/{project_id}/instances/{instance_id}/db-upgrade

Table 4-110 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-111 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Table 4-112 Request body parameter

Parameter	Mandatory	Type	Description
delay	No	Boolean	Whether the instance will be upgraded with a delay. <ul style="list-style-type: none"> • true: The instance will be upgraded during the specified maintenance window. • false (default value): The instance will be upgraded immediately.

Response Parameters

Status code: 200

Table 4-113 Response body parameter

Parameter	Type	Description
job_id	String	Task ID.

Status code: 400

Table 4-114 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500**Table 4-115** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Upgrading the minor version of a DB instance immediately

```
POST https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/instances/096c0fc43e804757b59946b80dc27f8bin07/db-upgrade
{
  "delay": false
}
```

Example Response

Status code: 200

Success.

```
{
  "job_id": "e0fbbfc8-1ac4-4721-b9e9-7dd685c5bdd7"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.3.16 Enabling or Disabling SSL

Function

This API is used to enable or disable SSL. Before calling this API:

- Learn how to [authorize and authenticate](#) it.

- Obtain the required [region and endpoint](#).

URI

PUT /v3/{project_id}/instances/{instance_id}/ssl-option

Table 4-116 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-117 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Table 4-118 Request body parameter

Parameter	Mandatory	Type	Description
ssl_option	Yes	Boolean	Whether to enable SSL. <ul style="list-style-type: none">• true: SSL is enabled.• false: SSL is disabled.

Response Parameters

Status code: 200

Table 4-119 Response body parameter

Parameter	Type	Description
job_id	String	Task ID.

Status code: 400

Table 4-120 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-121 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Enabling SSL for a DB instance

```
PUT https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/instances/  
096c0fc43e804757b59946b80dc27f8bin07/ssl-option  
{  
  "ssl_option": true  
}
```

Example Response

Status code: 200

Success.

```
{  
  "job_id": "e0fbbfc8-1ac4-4721-b9e9-7dd685c5bdd7"  
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.3.17 Binding an EIP

Function

This API is used to bind an EIP to a DB instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

PUT /v3/{project_id}/instances/{instance_id}/public-ips/bind

Table 4-122 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-123 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.

Parameter	Mandatory	Type	Description
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Table 4-124 Request body parameters

Parameter	Mandatory	Type	Description
public_ip	Yes	String	EIP to be bound.
public_ip_id	Yes	String	EIP ID.

Response Parameters

Status code: 200

Table 4-125 Response body parameter

Parameter	Type	Description
job_id	String	Task ID.

Status code: 400

Table 4-126 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-127 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Binding an EIP to a DB instance

```
PUT https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/instances/  
096c0fc43e804757b59946b80dc27f8bin07/public-ips/bind  
{  
  "public_ip" : "10.145.51.214",  
  "public_ip_id" : "8403e9cd-a7fa-4288-8b15-c7ceac1etest"  
}
```

Example Response

Status code: 200

Success.

```
{  
  "job_id" : "e0fbbfc8-1ac4-4721-b9e9-7dd685c5bdd7"  
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.3.18 Unbinding an EIP

Function

This API is used to unbind an EIP from a DB Instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

PUT /v3/{project_id}/instances/{instance_id}/public-ips/unbind

Table 4-128 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-129 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Response Parameters

Status code: 200

Table 4-130 Response body parameter

Parameter	Type	Description
job_id	String	Task ID.

Status code: 400

Table 4-131 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-132 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Unbinding an EIP from a DB instance

```
PUT https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/instances/  
096c0fc43e804757b59946b80dc27f8bin07/public-ips/unbind
```

Example Response

Status code: 200

Success.

```
{  
  "job_id" : "e0fbbfc8-1ac4-4721-b9e9-7dd685c5bdd7"  
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.3.19 Promoting a Read Replica to Primary

Function

This API is used to promote a read replica to the primary node. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

```
PUT /v3/{project_id}/instances/{instance_id}/switchover
```

Table 4-133 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-134 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Table 4-135 Request body parameter

Parameter	Mandatory	Type	Description
node_id	Yes	String	ID of the read replica that will be promoted to the primary.

Response Parameters

Status code: 200

Table 4-136 Response body parameter

Parameter	Type	Description
job_id	String	Task ID.

Status code: 400

Table 4-137 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-138 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Promoting a read replica to primary

```
PUT https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/instances/096c0fc43e804757b59946b80dc27f8bin07/switchover
{
  "node_id" : "1801a615b52b4a5697cfe385f6affbf4no07"
}
```

Example Response

Status code: 200

Success.

```
{
  "job_id" : "e0fbbfc8-1ac4-4721-b9e9-7dd685c5bdd7"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.3.20 Changing a Maintenance Window

Function

This API is used to change a maintenance window. To prevent service interruption, set the maintenance window to off-peak hours. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

PUT /v3/{project_id}/instances/{instance_id}/ops-window

Table 4-139 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-140 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.

Parameter	Mandatory	Type	Description
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Table 4-141 Request body parameters

Parameter	Mandatory	Type	Description
start_time	Yes	String	Start time for a maintenance window (UTC time).
end_time	Yes	String	End time for a maintenance window (UTC time). NOTE The start time and end time of a maintenance window must be on the hour, and the interval between them must be four hours.

Response Parameters

Status code: 400

Table 4-142 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-143 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Changing the maintenance window of a DB instance to 22:00-02:00

```
PUT https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/instances/  
096c0fc43e804757b59946b80dc27f8bin07/ops-window  
{  
  "start_time" : "22:00",  
  "end_time" : "02:00"  
}
```

Example Response

Status code: 200

Success.

```
{}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.3.21 Changing a Security Group

Function

This API is used to change the security group of a specified DB instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

PUT /v3/{project_id}/instances/{instance_id}/security-group

Table 4-144 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-145 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Table 4-146 Request body parameter

Parameter	Mandatory	Type	Description
security_group_id	Yes	String	Security group ID.

Response Parameters

Status code: 200

Table 4-147 Response body parameter

Parameter	Type	Description
job_id	String	Task ID.

Status code: 400

Table 4-148 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-149 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Changing the security group of a DB instance

```
PUT https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/instances/096c0fc43e804757b59946b80dc27f8bin07/security-group
{
  "security_group_id" : "054f55b5-946e-4761-a1e3-3be6892827c1"
}
```

Example Response

Status code: 200

Success.

```
{
  "job_id" : "e0fbbfc8-1ac4-4721-b9e9-7dd685c5bdd7"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.3.22 Changing a Private IP Address

Function

This API is used to change the private IP address of a DB instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

```
PUT /v3/{project_id}/instances/{instance_id}/internal-ip
```

Table 4-150 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-151 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Table 4-152 Request body parameter

Parameter	Mandatory	Type	Description
internal_ip	Yes	String	Private IP address.

Response Parameters

Status code: 200

Table 4-153 Response body parameter

Parameter	Type	Description
job_id	String	Task ID.

Status code: 400

Table 4-154 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-155 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Changing the private IP address of a DB instance

```
PUT https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/instances/096c0fc43e804757b59946b80dc27f8bin07/internal-ip
{
  "internal_ip" : "192.*.*"
}
```

Example Response

Status code: 200

Success.

```
{
  "job_id" : "e0fbbfc8-1ac4-4721-b9e9-7dd685c5bdd7"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.3.23 Changing a Database Port

Function

This API is used to change the database port of a DB instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

PUT /v3/{project_id}/instances/{instance_id}/port

Table 4-156 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-157 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.

Parameter	Mandatory	Type	Description
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Table 4-158 Request body parameter

Parameter	Mandatory	Type	Description
port	Yes	Integer	Port number. Value range: 1024 to 65535, excluding 5342 to 5345, 12017, 20000, 20201, 20202, 33062, and 33071.

Response Parameters

Status code: 200

Table 4-159 Response body parameter

Parameter	Type	Description
job_id	String	Task ID.

Status code: 400

Table 4-160 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-161 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Changing the database port to 8836

```
PUT https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/instances/096c0fc43e804757b59946b80dc27f8bin07/port
{
  "port" : 8836
}
```

Example Response

Status code: 200

Success.

```
{
  "job_id" : "e0fbbfc8-1ac4-4721-b9e9-7dd685c5bdd7"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.3.24 Changing a DB Instance Description

Function

This API is used to change a DB instance description. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

```
PUT /v3/{project_id}/instances/{instance_id}/alias
```

Table 4-162 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-163 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Table 4-164 Request body parameter

Parameter	Mandatory	Type	Description
alias	Yes	String	Instance description. The value can contain 0 to 64 characters, including letters, digits, periods (.), underscores (_), and hyphens (-).

Response Parameters

Status code: 400

Table 4-165 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-166 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Changing the description of a DB instance to **Test_alias**

```
PUT https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/instances/096c0fc43e804757b59946b80dc27f8bin07/alias
{
  "alias": "Test_alias"
}
```

Example Response

Status code: 200

Success.

```
{}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.3.25 Applying for a Private Domain Name

Function

This API is used to apply for a private domain name. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

Constraints

This API is in the open beta test (OBT) phase. To use this API, submit a service ticket.

URI

POST /v3/{project_id}/instances/{instance_id}/dns

Table 4-167 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-168 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Table 4-169 Request body parameter

Parameter	Mandatory	Type	Description
dns_type	Yes	String	Domain name type. Currently, only private is supported.

Response Parameters

Status code: 200

Table 4-170 Response body parameter

Parameter	Type	Description
job_id	String	Task ID.

Status code: 400

Table 4-171 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-172 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Applying for a private domain name

```
PUT https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/  
af315b8e6aaa41799bd9a31f2de15abcin07/dns  
{  
  "dns_type" : "private"  
}
```

Example Response

Status code: 200

Success.

```
{  
  "job_id" : "d5169969-e391-482a-9755-042b2d83ed17"  
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.3.26 Changing a Private Domain Name

Function

This API is used to change a private domain name. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

PUT /v3/{project_id}/instances/{instance_id}/dns

Table 4-173 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-174 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.

Parameter	Mandatory	Type	Description
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Table 4-175 Request body parameter

Parameter	Mandatory	Type	Description
dns_name	Yes	String	Prefix of the new domain name. Value: The name can contain 8 to 63 characters. Only uppercase letters, lowercase letters, and digits are allowed.

Response Parameters

Status code: 200

Table 4-176 Response body parameter

Parameter	Type	Description
job_id	String	Task ID.

Status code: 400

Table 4-177 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-178 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Changing a private domain name

```
POST https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/af315b8e6aaa41799bd9a31f2de15abcin07/dns
{
  "dns_name": "testmodifydnsname"
}
```

Example Response

Status code: 200

Success.

```
{
  "job_id": "d5169969-e391-482a-9755-042b2d83ed17"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.3.27 Querying the Kernel Version

Function

This API is used to query the kernel version of a DB instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/instances/{instance_id}/database-version

Table 4-179 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-180 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Response Parameters

Status code: 200

Table 4-181 Response body parameters

Parameter	Type	Description
datastore	InstanceData baseVersionInfo object	DB version information.
upgrade_flag	Boolean	Whether the version can be upgraded. <ul style="list-style-type: none"> • true: The version can be upgraded. • false: The instance cannot be upgraded.

Table 4-182 InstanceDatabaseVersionInfo

Parameter	Type	Description
current_version	String	Current database version.
current_kernel_version	String	Current database kernel version.
latest_version	String	Latest database version.
latest_kernel_version	String	Latest database kernel version.

Status code: 400

Table 4-183 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-184 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying the kernel version of a DB instance

```
GET https://{endpoint}/v3/97b026aa9cc4417888c14c84a1ad9860/instances/61a4ea66210545909d74a05c27a7179ein07/database-version
```

Example Response

Status code: 200

Success.

```
{
  "datastore" : {
```

```
"current_version": "8.0.22",  
"current_kernel_version": "2.0.28.15",  
"latest_version": "8.0.22",  
"latest_kernel_version": "2.0.42.230600"  
},  
"upgrade_flag": true  
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.3.28 Modifying Auto Scaling Policies

Function

This API is used to modify auto scaling policies. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

Constraints

This API is in the open beta test (OBT) phase. To use this API, submit a service ticket.

URI

PUT /v3/{project_id}/instances/{instance_id}/auto-scaling/policy

Table 4-185 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-186 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
Content-Type	Yes	String	Content type. Value: application/json
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Table 4-187 Request body parameters

Parameter	Mandatory	Type	Description
status	Yes	String	Whether auto scaling is enabled. Values: <ul style="list-style-type: none"> • ON: enabled • OFF: disabled
scaling_strategy	Yes	ScalingStrategyReqInfo object	Auto scaling policy.
monitor_cycle	No	Integer	Observation period, in seconds. During the entire observation period, if the average CPU usage is greater than or equal to the preset value, a scale-up is triggered. Value: 300, 600, 900, or 1800 . This parameter is mandatory when status is set to ON .

Parameter	Mandatory	Type	Description
silence_cycle	No	Integer	Silent period, in seconds. It indicates the minimum interval between two auto scale-up operations or two scale-down operations. Value: 300, 600, 1800, 3600, 7200, 10800, 86400, or 604800. This parameter is mandatory when status is set to ON .
enlarge_thres hold	No	Integer	Average CPU usage (%). Value range: 50–100. This parameter is mandatory when status is set to ON .
max_flavor	No	String	Maximum specifications. This parameter is mandatory when the instance specifications are automatically scaled up or down.
reduce_enabled	No	Boolean	Whether auto-down is enabled. This parameter is mandatory when auto scaling is enabled. <ul style="list-style-type: none"> • true: enabled • false: disabled
max_read_only_count	No	Integer	Maximum number of read replicas. This parameter is mandatory when read replicas are automatically added or deleted.
read_only_weight	No	Integer	Read weights of read replicas. This parameter is mandatory when read replicas are automatically added or deleted.

Table 4-188 ScalingStrategyReqInfo

Parameter	Mandatory	Type	Description
flavor_switch	Yes	String	Whether instance specifications can be automatically scaled up or down. <ul style="list-style-type: none"> ● ON: Yes ● OFF: No
read_only_switch	Yes	String	Whether read replicas can be automatically added or deleted. To use this function, ensure that there is only one proxy instance. For details about how to create a proxy instance, see Creating a Proxy Instance . <ul style="list-style-type: none"> ● ON: Yes ● OFF: No

Response Parameters

Status code: 200

Table 4-189 Response body parameters

Parameter	Type	Description
instance_id	String	Instance ID.
instance_name	String	Instance name.
switch_status	AutoScalingSwitchStatus object	Switch status.

Table 4-190 AutoScalingSwitchStatus

Parameter	Type	Description
scaling_switch	String	Whether auto scaling is enabled. Values: <ul style="list-style-type: none"> ● ON: enabled ● OFF: disabled

Parameter	Type	Description
flavor_switch	String	Whether instance specifications can be automatically scaled up or down. Values: <ul style="list-style-type: none"> ● ON: Instance specifications can be automatically scaled up or down. ● OFF: Instance specifications cannot be automatically scaled up or down.
read_only_switch	String	Whether read replicas can be automatically added or deleted. Values: <ul style="list-style-type: none"> ● ON: Read replicas can be automatically added or deleted. ● OFF: Read replicas cannot be automatically added or deleted.

Status code: 400

Table 4-191 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-192 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Modifying auto scaling policies

```
PUT https://{endpoint}/v3/97b026aa9cc4417888c14c84a1ad9860/instances/61a4ea66210545909d74a05c27a7179ein07/auto-scaling/policy
```

```
{
  "enlarge_threshold" : 50,
  "max_flavor" : "gaussdb.mysql.large.x86.4",
  "max_read_only_count" : 2,
```



```
"monitor_cycle" : 300,
"read_only_weight" : 10,
"reduce_enabled" : false,
"scaling_strategy" : {
  "flavor_switch" : "ON",
  "read_only_switch" : "ON"
},
"silence_cycle" : 300,
"status" : "ON"
}
```

Example Response

Status code: 200

Success.

```
{
  "instance_id" : "61a4ea66210545909d74a05c27a7179ein07",
  "instance_name" : "gauss-test-1",
  "switch_status" : {
    "scaling_switch" : "ON",
    "flavor_switch" : "ON",
    "read_only_switch" : "ON"
  }
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.3.29 Querying Auto Scaling Policies

Function

This API is used to query auto scaling policies. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/instances/{instance_id}/auto-scaling/policy

Table 4-193 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Explanation: Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID . Constraints: None Value range: The value can contain 32 characters. Only letters and digits are allowed. Default value: None
instance_id	Yes	String	Explanation: Instance ID, which uniquely identifies an instance. Constraints: None Value range: The value can contain 36 characters with a suffix of in07 . Only letters and digits are allowed. Default value: None

Request Parameters

Table 4-194 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	<p>Explanation: User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the token value.</p> <p>Constraints: None</p> <p>Value range: None</p> <p>Default value: None</p>
Content-Type	Yes	String	<p>Explanation: Content type.</p> <p>Constraints: None</p> <p>Value range: application/json</p> <p>Default value: None</p>
X-Language	No	String	<p>Explanation: Request language type.</p> <p>Constraints: None</p> <p>Value range:</p> <ul style="list-style-type: none"> • en-us • zh-cn <p>Default value: en-us</p>

Response Parameters

Status code: 200

Table 4-195 Response body parameters

Parameter	Type	Description
id	String	Explanation: ID of an auto scaling policy. Value range: None
instance_id	String	Explanation: Instance ID. Value range: The value can contain 36 characters with a suffix of in07 . Only letters and digits are allowed.
instance_name	String	Explanation: Instance name. Value range: The name must start with a letter and consist of 4 to 64 characters. Only letters (case-sensitive), digits, hyphens (-), and underscores (_) are allowed.
status	String	Explanation: Whether auto scaling is enabled. Value range: <ul style="list-style-type: none"> ● ON: enabled ● OFF: disabled
monitor_cycle	Integer	Explanation: Observation period, in seconds. During the entire observation period, if the average CPU usage is greater than or equal to the preset value, a scale-up is triggered. Value range: <ul style="list-style-type: none"> ● 300 ● 600 ● 900 ● 1800

Parameter	Type	Description
silence_cycle	Integer	<p>Explanation: Silent period, in seconds. It indicates the minimum interval between two auto scale-up operations or two scale-down operations.</p> <p>Value range:</p> <ul style="list-style-type: none"> • 300 • 600 • 1800 • 3600 • 7200 • 10800 • 86400 • 604800
enlarge_thres hold	Integer	<p>Explanation: Average CPU usage.</p> <p>Value range: 50-100</p>
max_flavor	String	<p>Explanation: Maximum specifications.</p> <p>Value range: Maximum specifications that can be changed for an instance at the current site.</p>
reduce_enable d	Boolean	<p>Explanation: Whether auto scale-down is enabled.</p> <p>Value range:</p> <ul style="list-style-type: none"> • true: enabled • false: disabled
min_flavor	String	<p>Explanation: Minimum specifications.</p> <p>Value range: Minimum specifications that can be changed for an instance at the current site.</p>

Parameter	Type	Description
silence_start_at	String	<p>Explanation: Start time of the silent period (end time of the last change).</p> <p>The format is yyyy-mm-ddThh:mm:ssZ. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, in the Beijing time zone, the offset is +0800.</p> <p>Value range: None</p>
scaling_strategy	ScalingStrategyInfo object	<p>Explanation: Auto scaling policy.</p>
max_read_only_count	Integer	<p>Explanation: Maximum number of read replicas.</p> <p>Value range: $2 \leq \text{Number of current read replicas} < \text{Preset value} \leq 15$</p>
min_read_only_count	Integer	<p>Explanation: Minimum number of read replicas.</p> <p>Value range: 1-14</p>
read_only_weight	Integer	<p>Explanation: Read weights of read replicas.</p> <p>Value range: 0-1000</p>

Table 4-196 ScalingStrategyInfo

Parameter	Type	Description
flavor_switch	String	<p>Explanation: Whether instance specifications can be automatically scaled up or down.</p> <p>Value range:</p> <ul style="list-style-type: none"> ● ON: Yes ● OFF: No

Parameter	Type	Description
read_only_switch	String	<p>Explanation: Whether read replicas can be automatically added or deleted.</p> <p>Value range:</p> <ul style="list-style-type: none"> • ON: Yes • OFF: No

Status code: 400

Table 4-197 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-198 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying auto scaling policies

```
GET https://{endpoint}/v3/97b026aa9cc4417888c14c84a1ad9860/instances/61a4ea66210545909d74a05c27a7179ein07/auto-scaling/policy
```

Example Response

Status code: 200

Success.

- Performing a query after auto scaling is enabled


```
{
  "id": "26d8e193-1ea0-4adb-89d0-d1343399d0e7",
  "instance_id": "41ff7519e22d44eea6066615fa5b17c7in07",
  "instance_name": "gauss-test-1",
  "status": "ON",
  "monitor_cycle": 300,
  "silence_cycle": 300,
```

```
"enlarge_threshold" : 50,
"max_flavor" : "gaussdb.mysql.large.x86.4",
"reduce_enabled" : false,
"min_flavor" : "gaussdb.mysql.medium.x86.4",
"silence_start_at" : "2023-08-31T08:59:09+0000",
"scaling_strategy" : {
  "flavor_switch" : "ON",
  "read_only_switch" : "ON"
},
"max_read_only_count" : 2,
"min_read_only_count" : 1,
"read_only_weight" : 10
}
```

- Performing a query after auto scaling is disabled

```
{
  "id" : null,
  "instance_id" : "41ff7519e22d44eea6066615fa5b17c7in07",
  "instance_name" : "gauss-test-1",
  "status" : "OFF",
  "monitor_cycle" : null,
  "silence_cycle" : null,
  "enlarge_threshold" : null,
  "max_flavor" : null,
  "reduce_enabled" : null,
  "min_flavor" : null,
  "silence_start_at" : "",
  "scaling_strategy" : {
    "flavor_switch" : "",
    "read_only_switch" : ""
  },
  "max_read_only_count" : null,
  "min_read_only_count" : null,
  "read_only_weight" : null
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.3.30 Pre-Checking Resources

Function

This API is used to pre-check resources. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

POST /v3/{project_id}/resource-check

Table 4-199 URI parameter

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .

Request Parameters

Table 4-200 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
Content-Type	Yes	String	Content type. Value: application/json
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Table 4-201 Request body parameters

Parameter	Mandatory	Type	Description
action	Yes	String	Verification type. <ul style="list-style-type: none"> • createInstance: pre-checking resources during instance creation • createReadOnlyNode: pre-checking resources during read replica creation • resizeFlavor: pre-checking resources during instance specification change
resource	Yes	CheckResourceInfo object	Resource information.

Table 4-202 CheckResourceInfo

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	Enterprise project ID. This parameter is mandatory when action is set to createInstance .
instance_num	No	Integer	Number of instances. This parameter is mandatory when action is set to createInstance .
mode	No	String	Instance type. Its value is Cluster . This parameter is mandatory when action is set to createInstance .
availability_zone_mode	No	String	AZ type. The value can be single or multi . This parameter is mandatory when action is set to createInstance .
node_num	No	Integer	Number of nodes. This parameter is mandatory when action is set to createInstance or createReadOnlyNode .

Parameter	Mandatory	Type	Description
flavor_ref	No	String	Specification code. This parameter is mandatory when action is set to createInstance or resizeFlavor .
availability_zone	No	String	AZ code.
subnet_id	No	String	Subnet ID. This parameter is mandatory when action is set to createInstance .
instance_id	No	String	Instance ID. This parameter is mandatory when action is set to createReadOnlyNode or resizeFlavor .

Response Parameters

Status code: 200

Table 4-203 Response body parameter

Parameter	Type	Description
result	Boolean	Returned result. <ul style="list-style-type: none"> • true: The check is passed. • false: The check fails.

Status code: 400

Table 4-204 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-205 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

- Pre-checking resources during instance creation

POST https://{endpoint}/v3/97b026aa9cc4417888c14c84a1ad9860/resource-check

```
{
  "action": "createInstance",
  "resource": {
    "enterprise_project_id": 0,
    "instance_num": 1,
    "mode": "Cluster",
    "availability_zone_mode": "single",
    "node_num": 2,
    "flavor_ref": "gaussdb.mysql.xlarge.x86.4",
    "availability_zone": "cn-southwest-244b",
    "subnet_id": "1e9f71dd-9192-4c0d-9739-161d8dcca68c"
  }
}
```

- Pre-checking resources during read replica creation

POST https://{endpoint}/v3/97b026aa9cc4417888c14c84a1ad9860/resource-check

```
{
  "action": "createReadOnlyNode",
  "resource": {
    "instance_id": "376e0847a2224e95afcd3e607eccd544in07",
    "node_num": 1
  }
}
```

- Pre-checking resources during instance specification change

POST https://{endpoint}/v3/97b026aa9cc4417888c14c84a1ad9860/resource-check

```
{
  "action": "resizeFlavor",
  "resource": {
    "instance_id": "376e0847a2224e95afcd3e607eccd544in07",
    "flavor_ref": "gaussdb.mysql.xlarge.x86.4"
  }
}
```

Example Response

Status code: 200

Success.

```
{
  "result": true
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.3.31 Querying DB instances

Function

This API is used to query DB instances according to search criteria. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3.1/{project_id}/instances

Table 4-206 URI parameter

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .

Table 4-207 Query parameters

Parameter	Mandatory	Type	Description
id	No	String	Instance ID. The asterisk (*) is reserved for the system. If the instance ID starts with *, it indicates that fuzzy match is performed based on the value following *. Otherwise, the exact match is performed based on the instance ID. The value cannot contain only asterisks (*).
name	No	String	Instance name. The asterisk (*) is reserved for the system. If the instance name starts with *, it indicates that fuzzy match is performed based on the value following *. Otherwise, the exact match is performed based on the instance name. The value cannot contain only asterisks (*).
type	No	String	Instance type to be queried. Currently, only the cluster type is supported.
datastore_type	No	String	DB type. Currently, only gaussdb-mysql is supported.
vpc_id	No	String	VPC ID.
subnet_id	No	String	Network ID of the subnet.
private_ip	No	String	Private IP address.
readonly_private_ip	No	String	Private IP address for read.
proxy_ip	No	String	Proxy IP address.
offset	No	Integer	Index offset. If offset is set to <i>N</i> , the resource query starts from the <i>N</i> +1 piece of data. The value is 0 by default, indicating that the query starts from the first piece of data. The value cannot be a negative number.

Parameter	Mandatory	Type	Description
limit	No	Integer	Number of records to be queried. The default value is 100 . The value must be a positive integer. The minimum value is 1 and the maximum value is 100 .
tags	No	String	Queries based on the instance tag keys and values. <ul style="list-style-type: none">• <i>{key}</i> indicates the tag key.• <i>{value}</i> indicates the tag value. To query instances with multiple tag keys and values, separate key-value pairs with commas (,). The key must be unique. Multiple keys are in AND relationship.

Request Parameters

Table 4-208 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Response Parameters

Status code: 200

Table 4-209 Response body parameters

Parameter	Type	Description
instances	Array of MysqlInstanceListInfoUnifyStatus objects	Instance list.
total_count	Integer	Total number of records.

Table 4-210 MysqlInstanceListInfoUnifyStatus

Parameter	Type	Description
id	String	Instance ID, which is compliant with the UUID format.
name	String	Instance name.
status	String	Instance status. Values: <ul style="list-style-type: none"> ● creating: The DB instance is being created. ● normal: The instance is running properly. ● abnormal: The instance is abnormal. ● createfail: The instance failed to be created.
private_ips	Array of strings	Private IP addresses for write. It is left blank until an ECS is created.
proxy_ips	Array of strings	Proxy IP addresses. It is left blank until proxy instances are created for a DB instance.
readonly_private_ips	Array of strings	Private IP addresses for read. It is left blank until an ECS is created.
public_ips	Array of strings	EIPs.
port	String	Database port.
type	String	Instance type. The value is Cluster .
region	String	Region where the DB instance is deployed.
datastore	MysqlDatastoreWithKernelVersion object	Database information.

Parameter	Type	Description
created	String	Creation time. The format is yyyy-mm-ddThh:mm:ssZ. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, if the time zone offset is one hour, the value of Z is +0100 .
updated	String	Update time. The format is the same as that of the created field.
db_user_name	String	Default username.
vpc_id	String	VPC ID.
subnet_id	String	Network ID of the subnet.
security_group_id	String	Security group ID.
flavor_ref	String	Specification code.
flavor_info	MysqlFlavorInfo object	Flavor information.
volume	MysqlVolumeInfo object	Storage disk information.
backup_strategy	MysqlBackupStrategy object	Automated backup policy.
enterprise_project_id	String	Enterprise project ID.
time_zone	String	Time zone.
charge_info	MysqlChargeInfo object	Billing mode, which is yearly/monthly or pay-per-use (default setting).
dedicated_resource_id	String	Dedicated resource pool ID. This parameter is returned only when the instance belongs to a dedicated resource pool.
tags	Array of InstanceTagItem objects	Tag list.

Table 4-211 MysqlDatastoreWithKernelVersion

Parameter	Type	Description
type	String	DB engine. Currently, only gaussdb-mysql is supported.
version	String	DB version.
kernel_version	String	Database kernel version.

Table 4-212 MysqlFlavorInfo

Parameter	Type	Description
vcpus	String	Number of vCPUs.
ram	String	Memory size in GB.

Table 4-213 MysqlVolumeInfo

Parameter	Type	Description
type	String	Disk type.
size	String	Used disk size in GB.

Table 4-214 MysqlBackupStrategy

Parameter	Type	Description
start_time	String	<p>Automated backup start time. The creation of an automated backup will be triggered within one hour after the time specified by this parameter.</p> <p>The value cannot be empty. It must be a valid value in the "hh:mm-HH:MM" format. The current time is in the UTC format.</p> <ol style="list-style-type: none"> The HH value must be 1 greater than the hh value. The values of mm and MM must be the same and must be set to 00.
keep_days	String	Automated backup retention days. Value range: 1-732.

Table 4-215 MysqlChargeInfo

Parameter	Type	Description
charge_mode	String	<p>Billing mode.</p> <p>Values:</p> <ul style="list-style-type: none"> ● prePaid: indicates the yearly/monthly billing mode. ● postPaid: indicates the pay-per-use billing mode. <p>Values:</p> <ul style="list-style-type: none"> ● prePaid ● postPaid
period_type	String	<p>Subscription period.</p> <p>Values:</p> <ul style="list-style-type: none"> ● month: The service is subscribed by month. ● year: The service is subscribed by year. <p>This parameter is available and mandatory only when charge_mode is set to prePaid.</p> <p>Values:</p> <ul style="list-style-type: none"> ● month ● year
period_num	Integer	<p>This parameter is available and mandatory only when charge_mode is set to prePaid.</p> <p>Values:</p> <ul style="list-style-type: none"> ● When period_type is set to month, the parameter value ranges from 1 to 9. ● When period_type is set to year, the parameter value ranges from 1 to 3.
is_auto_renew	String	<p>Whether automatic renewal is enabled for yearly/monthly DB instances. The renewal period is the same as the original period and the order will be automatically paid during the subscription renewal.</p> <ul style="list-style-type: none"> ● true: indicates that automatic renewal is enabled. ● false: indicates that automatic renewal is disabled. The default value is false.

Parameter	Type	Description
is_auto_pay	String	Whether the order will be automatically paid after yearly/monthly instances are created. This parameter does not affect the payment method of automatic renewal. <ul style="list-style-type: none"> • true: indicates the order will be automatically paid from your account. The default value is true. • false: indicates the order will be manually paid.

Table 4-216 InstanceTagItem

Parameter	Type	Description
key	String	Tag key.
value	String	Tag value.

Status code: 400

Table 4-217 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-218 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying TaurusDB instances whose private IP addresses are 192.*.*

```
GET https://{endpoint}/v3.1/054e292c9880d4992f02c0196d3ea468/instances?
id=61a4ea66210545909d74a05c27a7179ein07&name=gaussdb-mysql-
instance01&type=Cluster&datastore_type=gaussdb-mysql&vpc_id=3cedfc54-b105-4652-
```

```
a4e0-847b11576b58&subnet_id=c1cfa53c-65d3-431e-8552-326bf310c7ad&private_ip=192.**.*&offset=0&limit=10&tags=taurusKey1=value1
```

Example Response

Status code: 200

Success.

```
{
  "total_count": 1,
  "instances": [ {
    "id": "61a4ea66210545909d74a05c27a7179ein07",
    "name": "gaussdb-mysql-instance01",
    "status": "normal",
    "port": 3306,
    "type": "Cluster",
    "private_ips": [ "192.**.*" ],
    "readonly_private_ips": [ "192.**.*", "192.**.*" ],
    "proxy_ips": [ "192.**.*" ],
    "db_user_name": "root",
    "region": "region-1",
    "datastore": {
      "type": "gaussdb-mysql",
      "version": "8.0",
      "kernel_version": "2.0.29.1"
    },
    "created": "2018-08-20T02:33:49_0800",
    "updated": "2018-08-20T02:33:49_0800",
    "volume": {
      "type": "POOL",
      "size": 100
    },
    "vpc_id": "3cedfc54-b105-4652-a4e0-847b11576b58",
    "subnet_id": "c1cfa53c-65d3-431e-8552-326bf310c7ad",
    "security_group_id": "fc577a1a-f202-424a-977f-24faec3fdd55",
    "flavor_ref": "gaussdb.mysql.c3.small.4",
    "flavor_info": {
      "vcpus": 8,
      "ram": 16
    },
    "backup_strategy": {
      "start_time": "19:00-20:00",
      "keep_days": 7
    },
    "charge_info": {
      "charge_mode": "postPaid"
    },
    "enterprise_project_id": 0,
    "time_zone": "UTC",
    "tags": [ {
      "key": "Key1",
      "value": "value1"
    } ]
  } ]
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.

Status Code	Description
500	Server error.

Error Code

For details, see [Error Codes](#).

4.3.32 Querying Details of a DB Instance

Function

This API is used to query the details of a specified DB instance. Before using this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3.1/{project_id}/instances/{instance_id}

Table 4-219 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-220 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Response Parameters

Status code: 200

Table 4-221 Response body parameter

Parameter	Type	Description
instance	MysqlInstanceInfoDetailUnifyStatus object	Instance information.

Table 4-222 MysqlInstanceInfoDetailUnifyStatus

Parameter	Type	Description
id	String	Instance ID, which is compliant with the UUID format.
name	String	Instance name.
project_id	String	Project ID of a tenant in a region.

Parameter	Type	Description
status	String	Instance status. Values: <ul style="list-style-type: none"> ● creating: The DB instance is being created. ● normal: The instance is running properly. ● abnormal: The instance is abnormal. ● createfail: The instance failed to be created.
port	String	Database port.
alias	String	Instance description.
type	String	Instance type. The value is Cluster .
charge_info	MysqlInstanceChargeInfo object	Billing mode, which is yearly/monthly or pay-per-use (default setting).
node_count	Integer	Number of nodes.
datastore	MysqlDatastoreWithKernelVersion object	Database information.
backup_used_space	Double	Used backup space in GB.
created	String	Creation time. The format is yyyy-mm-ddThh:mm:ssZ. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, if the time zone offset is one hour, the value of Z is +0100 .
updated	String	Update time. The format is the same as that of the created field.
private_write_ips	Array of strings	Private IP address list.
private_dns_names	Array of strings	Private domain name list. After a DB instance is created, you need to manually apply for a private domain name, or the private domain name is left blank.
public_ips	String	EIPs.
db_username	String	Default username.
vpc_id	String	VPC ID.
subnet_id	String	Network ID of the subnet.

Parameter	Type	Description
security_group_id	String	Security group ID.
configuration_id	String	ID of the parameter template used for creating a DB instance or ID of the latest parameter template that is applied to a DB instance.
backup_strategy	MySQLBackupStrategy object	Automated backup policy.
nodes	Array of MySQLInstanceNodeInfo objects	Node information.
enterprise_project_id	String	Enterprise project ID.
time_zone	String	Time zone.
az_mode	String	AZ type. Values: <ul style="list-style-type: none">• single: single AZ• multi: multiple AZs
master_az_code	String	Primary AZ.
maintenance_window	String	Maintenance window in the UTC format.
tags	Array of MySQLTags objects	Instance tags.
dedicated_resource_id	String	Dedicated resource pool ID. This parameter is returned only when the instance belongs to a dedicated resource pool.
proxies	Array of MySQLProxyInfo objects	Proxy information.
tde_info	MySQLTdeInfo object	TDE configuration. The AES 256 and SM4 algorithms are supported. TDE is in the open beta test (OBT) phase. To use it, submit a service ticket.

Table 4-223 MysqlInstanceChargeInfo

Parameter	Type	Description
charge_mode	String	Billing mode.
order_id	String	Order ID. This parameter is returned only for yearly/monthly instances.

Table 4-224 MysqlDatastoreWithKernelVersion

Parameter	Type	Description
type	String	DB engine. Currently, only gaussdb-mysql is supported.
version	String	DB version.
kernel_version	String	Database kernel version.

Table 4-225 MysqlBackupStrategy

Parameter	Type	Description
start_time	String	Automated backup start time. The creation of an automated backup will be triggered within one hour after the time specified by this parameter. The value cannot be empty. It must be a valid value in the "hh:mm-HH:MM" format. The current time is in the UTC format. <ol style="list-style-type: none">1. The HH value must be 1 greater than the hh value.2. The values of mm and MM must be the same and must be set to 00.
keep_days	String	Automated backup retention days. Value range: 1-732.

Table 4-226 MysqlInstanceNodeInfo

Parameter	Type	Description
id	String	Instance ID, which is compliant with the UUID format.
name	String	Node name.

Parameter	Type	Description
type	String	Node type. Values: <ul style="list-style-type: none"> • master: primary node • slave: read replica
status	String	Node status.
port	Integer	Database port.
private_read_ips	Array of strings	Private IP addresses for read of nodes.
volume	MysqlInstanceNodeVolumeInfo object	Storage disk information.
az_code	String	AZ.
region_code	String	Region where the instance is located.
created	String	Creation time. The format is yyyy-mm-ddThh:mm:ssZ. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, if the time zone offset is one hour, the value of Z is +0100 .
updated	String	Update time. The format is the same as that of the created field.
flavor_id	String	Specification ID.
flavor_ref	String	Specification code.
max_connections	String	Maximum number of connections.
vcpus	String	Number of vCPUs.
ram	String	Memory size in GB.
need_restart	Boolean	Whether to reboot the instance for the parameter modifications to take effect.
priority	Integer	Failover priority.

Table 4-227 MysqlInstanceNodeVolumeInfo

Parameter	Type	Description
type	String	Disk type.

Parameter	Type	Description
used	String	Used disk size in GB.
size	Long	Disk size of the yearly/monthly instance in GB.

Table 4-228 MysqlTags

Parameter	Type	Description
key	String	Tag key. The value can contain a maximum of 36 Unicode characters. The value cannot be an empty string, a space, or left blank. Only uppercase letters, lowercase letters, digits, hyphens (-), and underscores (_) are allowed.
value	String	Tag value. It can contain up to 43 Unicode characters and can be an empty string. Only uppercase letters, lowercase letters, digits, periods (.), hyphens (-), and underscores (_) are allowed.

Table 4-229 MysqlProxyInfo

Parameter	Type	Description
pool_id	String	Proxy instance ID.
name	String	Proxy instance name.
address	String	Proxy read/write splitting address.

Table 4-230 MysqlTdeInfo

Parameter	Type	Description
enable_tde	Boolean	Whether to enable TDE.
encryption_type	String	TDE algorithm. The AES 256 and SM4 algorithms are supported.

Status code: 400

Table 4-231 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500**Table 4-232** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying details of a specified DB instance

```
GET https://{endpoint}/v3.1/3cedfc54-b105-4652-a4e0-847b11576628/instances/d738399de028480fabb2b8120d4e01a4in07
```

Example Response

Status code: 200

Success.

```
{
  "instance": {
    "id": "d738399de028480fabb2b8120d4e01a4in07",
    "name": "gaussdb-mysql-instance01",
    "alias": "",
    "status": "normal",
    "project_id": "3cedfc54-b105-4652-a4e0-847b11576628",
    "enterprise_project_id": 0,
    "type": "Cluster",
    "charge_info": {
      "charge_mode": "postPaid",
      "order_id": ""
    },
  },
  "node_count": 2,
  "datastore": {
    "type": "gaussdb-mysql",
    "version": "8.0",
    "kernel_version": "2.0.29.1"
  },
  "created": "2022-07-14T16:26:58+0800",
  "updated": "2022-07-18T14:20:33+0800",
  "public_ips": "10.*.*.*",
  "private_write_ips": [ "192.*.*.*" ],
  "private_dns_names": [ "d738399de028480fabb2b8120d4e01a4in07.internal.cn-xianhz-1.gaussdbformysql.myhuaweicloud.com" ],
  "db_user_name": "root",
  "port": 3306,
  "vpc_id": "3cedfc54-b105-4652-a4e0-847b11576658",
}
```

```
"subnet_id" : "c1cfa53c-65d3-431e-8552-326bf310c7ad",
"security_group_id" : "fc577a1a-f202-424a-977f-24faec3fdd55",
"backup_strategy" : {
  "start_time" : "19:00-20:00",
  "keep_days" : 7
},
"nodes" : [ {
  "id" : "799a0f2fa49a4151bf9f7063c1fbba36no07",
  "name" : "gauss-d616-lb07_node01",
  "type" : "master",
  "status" : "normal",
  "port" : 3306,
  "private_read_ips" : [ "192.*.*" ],
  "volume" : {
    "type" : "POOL",
    "used" : 0.07
  },
  "az_code" : "az1",
  "region_code" : "region-1",
  "flavor_id" : "3169caaf-6c2f-41d5-aadd-c8fc3d83597e",
  "flavor_ref" : "gaussdb.mysql.xlarge.arm.4",
  "max_connections" : 1500,
  "vcpus" : 1,
  "ram" : 4,
  "need_restart" : false,
  "priority" : 1,
  "created" : "2022-07-14T16:26:58+0800",
  "updated" : "2022-07-18T09:24:18+0800"
}, {
  "id" : "799a0f2fa49a4151bf9f7063c1fbba35no07",
  "name" : "gauss-d616-lb07_node02",
  "type" : "slave",
  "status" : "normal",
  "port" : 3306,
  "private_read_ips" : [ "192.*.*" ],
  "volume" : {
    "type" : "POOL",
    "used" : 0.07
  },
  "az_code" : "az1*",
  "region_code" : "region-1",
  "flavor_id" : "3169caaf-6c2f-41d5-aadd-c8fc3d83597e",
  "flavor_ref" : "gaussdb.mysql.xlarge.arm.4",
  "max_connections" : 1500,
  "vcpus" : 1,
  "ram" : 4,
  "need_restart" : false,
  "priority" : 1,
  "created" : "2022-07-14T16:26:58+0800",
  "updated" : "2022-07-18T09:36:18+0800"
} ],
"time_zone" : "UTC+08:00",
"backup_used_space" : 0.24,
"az_mode" : "single",
"master_az_code" : "az1",
"maintenance_window" : "18:00-22:00",
"tags" : [ ],
"configuration_id" : "53570e0de54e40c5a15f331aa5sd2176pr07",
"dedicated_resource_id" : "",
"proxies" : [ {
  "pool_id" : "dab1cfc5150c4d1ca0e8c6596bfc0d8cpo01",
  "address" : "192.*.*",
  "name" : "proxy-name"
} ]
}
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.3.33 Querying Details of DB Instances in Batches

Function

This API is used to query details of DB instances in batches. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3.1/{project_id}/instances/details

Table 4-233 URI parameter

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .

Table 4-234 Query parameter

Parameter	Mandatory	Type	Description
instance_ids	Yes	String	Instance ID, which is compliant with the UUID format. A maximum of 20 instance IDs can be entered at a time. Separate them with commas (,).

Request Parameters

Table 4-235 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Response Parameters

Status code: 200

Table 4-236 Response body parameter

Parameter	Type	Description
instances	Array of MySQLInstanceInfoDetailUnifyStatus objects	Instance details.

Table 4-237 MySQLInstanceInfoDetailUnifyStatus

Parameter	Type	Description
id	String	Instance ID, which is compliant with the UUID format.
name	String	Instance name.
project_id	String	Project ID of a tenant in a region.

Parameter	Type	Description
status	String	Instance status. Values: <ul style="list-style-type: none"> ● creating: The DB instance is being created. ● normal: The instance is running properly. ● abnormal: The instance is abnormal. ● createfail: The instance failed to be created.
port	String	Database port.
alias	String	Instance description.
type	String	Instance type. The value is Cluster .
charge_info	MysqlInstanceChargeInfo object	Billing information, which is yearly/monthly or pay-per-use (default setting).
node_count	Integer	Number of nodes.
datastore	MysqlDatastoreWithKernelVersion object	Database information.
backup_used_space	Double	Used backup space in GB.
created	String	Creation time in the "yyyy-mm-ddThh:mm:ssZ" format. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, if the time zone offset is one hour, the value of Z is +0100 .
updated	String	Update time. The format is the same as that of the created field.
private_write_ips	Array of strings	Private IP address list.
private_dns_names	Array of strings	Private domain name list. After a DB instance is created, you need to manually apply for a private domain name, or the private domain name is left blank.
public_ips	String	EIP list.
db_username	String	Default username.
vpc_id	String	VPC ID.
subnet_id	String	Network ID of the subnet.

Parameter	Type	Description
security_group_id	String	Security group ID.
configuration_id	String	ID of the parameter template used for creating a DB instance or ID of the latest parameter template that is applied to a DB instance.
backup_strategy	MySQLBackupStrategy object	Automated backup policy.
nodes	Array of MySQLInstanceNodeInfo objects	Node information.
enterprise_project_id	String	Enterprise project ID.
time_zone	String	Time zone.
az_mode	String	AZ type. Values: <ul style="list-style-type: none"> • single: single AZ • multi: multiple AZs
master_az_code	String	Primary AZ.
maintenance_window	String	Maintenance window in the UTC format.
tags	Array of MySQLTags objects	Instance tags.
dedicated_resource_id	String	Dedicated resource pool ID. This parameter is returned only when the instance belongs to a dedicated resource pool.
proxies	Array of MySQLProxyInfo objects	Proxy information.
tde_info	MySQLTdeInfo object	TDE configuration. The AES 256 and SM4 algorithms are supported. TDE is in the open beta test (OBT) phase. To use it, submit a service ticket.

Table 4-238 MysqlInstanceChargeInfo

Parameter	Type	Description
charge_mode	String	Billing mode.
order_id	String	Order ID. This parameter is returned only for yearly/monthly instances.

Table 4-239 MysqlDatastoreWithKernelVersion

Parameter	Type	Description
type	String	DB engine. Currently, only gaussdb-mysql is supported.
version	String	DB version.
kernel_version	String	Database kernel version.

Table 4-240 MysqlBackupStrategy

Parameter	Type	Description
start_time	String	Automated backup start time. The creation of an automated backup will be triggered within one hour after the time specified by this parameter. The value cannot be empty. It must be a valid value in the "hh:mm-HH:MM" format. The current time is in the UTC format. 1. The HH value must be 1 greater than the hh value. 2. The values of mm and MM must be the same and must be set to 00 .
keep_days	String	Automated backup retention days. Value range: 1-732.

Table 4-241 MysqlInstanceNodeInfo

Parameter	Type	Description
id	String	Instance ID, which is compliant with the UUID format.
name	String	Node name.

Parameter	Type	Description
type	String	Node type. Values: <ul style="list-style-type: none"> • master: primary node • slave: read replica
status	String	Node status.
port	Integer	Database port.
private_read_ips	Array of strings	Private IP addresses for read of nodes.
volume	MysqlInstanceNodeVolumeInfo object	Storage disk information.
az_code	String	AZ.
region_code	String	Region where the instance is located.
created	String	Creation time in the "yyyy-mm-ddThh:mm:ssZ" format. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, if the time zone offset is one hour, the value of Z is +0100 .
updated	String	Update time. The format is the same as that of the created field.
flavor_id	String	Specification ID.
flavor_ref	String	Specification code.
max_connections	String	Maximum number of connections.
vcpus	String	Number of vCPUs.
ram	String	Memory size in GB.
need_restart	Boolean	Whether to reboot the instance for the parameter modifications to take effect.
priority	Integer	Failover priority.

Table 4-242 MysqlInstanceNodeVolumeInfo

Parameter	Type	Description
type	String	Disk type.

Parameter	Type	Description
used	String	Used disk size in GB.
size	Long	Disk size of the yearly/monthly instance in GB.

Table 4-243 MysqlTags

Parameter	Type	Description
key	String	Tag key. The value can contain a maximum of 36 Unicode characters. The value cannot be an empty string, a space, or left blank. Only uppercase letters, lowercase letters, digits, hyphens (-), and underscores (_) are allowed.
value	String	Tag value. It can contain up to 43 Unicode characters and can be an empty string. Only uppercase letters, lowercase letters, digits, periods (.), hyphens (-), and underscores (_) are allowed.

Table 4-244 MysqlProxyInfo

Parameter	Type	Description
pool_id	String	Proxy instance ID.
name	String	Proxy instance name.
address	String	Proxy read/write splitting address.

Table 4-245 MysqlTdeInfo

Parameter	Type	Description
enable_tde	Boolean	Whether to enable TDE.
encryption_type	String	TDE algorithm. The AES 256 and SM4 algorithms are supported.

Status code: 400

Table 4-246 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-247 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying details of DB instances in batches

```
GET https://{endpoint}/v3.1/97b026aa9cc4417888c14c84a1ad9860/instances/details?instance_ids=11684a0e59e94bceba7880d58cfb07b5in07
```

Example Response

Status code: 200

Success.

```
{
  "instances": [ {
    "id": "11684a0e59e94bceba7880d58cfb07b5in07",
    "name": "gaussdb-mysql-instance01",
    "alias": "",
    "status": "normal",
    "project_id": "3cedfc54-b105-4652-a4e0-847b11576628",
    "enterprise_project_id": 0,
    "type": "Cluster",
    "charge_info": {
      "charge_mode": "postPaid",
      "order_id": ""
    },
  },
  "node_count": 2,
  "datastore": {
    "type": "gaussdb-mysql",
    "version": "8.0",
    "kernel_version": "2.0.29.1"
  },
  "created": "2022-07-14T16:26:58+0800",
  "updated": "2022-07-18T14:20:33+0800",
  "public_ips": "10.*.*",
  "private_write_ips": [ "192.*.*" ],
  "private_dns_names": [ "11684a0e59e94bceba7880d58cfb07b5in07.internal.cn-xianhz-1.gaussdbformysql.myhuaweicloud.com" ],
  "db_user_name": "root",
  "port": 3306,
  "vpc_id": "3cedfc54-b105-4652-a4e0-847b115766b58",
}
```

```
"subnet_id" : "c1cfa53c-65d3-431e-8552-326bf310c7ad",
"security_group_id" : "fc577a1a-f202-424a-977f-24faec3fdd55",
"backup_strategy" : {
  "start_time" : "19:00-20:00",
  "keep_days" : 7
},
"nodes" : [ {
  "id" : "799a0f2fa49a4151bf9f7063c1fbba36no07",
  "name" : "gauss-d616-lb07_node01",
  "type" : "master",
  "status" : "normal",
  "port" : 3306,
  "private_read_ips" : [ "192.*.*" ],
  "volume" : {
    "type" : "POOL",
    "used" : 0.07
  },
  "az_code" : "az1xahz",
  "region_code" : "region-1",
  "flavor_id" : "3169caaf-6c2f-41d5-aadd-c8fc3d83597e",
  "flavor_ref" : "gaussdb.mysql.xlarge.arm.4",
  "max_connections" : 1500,
  "vcpus" : 1,
  "ram" : 4,
  "need_restart" : false,
  "priority" : 1,
  "created" : "2022-07-14T16:26:58+0800",
  "updated" : "2022-07-18T09:24:18+0800"
}, {
  "id" : "799a0f2fa49a4151bf9f7063c1fbba35no07",
  "name" : "gauss-d616-lb07_node02",
  "type" : "slave",
  "status" : "normal",
  "port" : 3306,
  "private_read_ips" : [ "192.*.*" ],
  "volume" : {
    "type" : "POOL",
    "used" : 0.07
  },
  "az_code" : "az1",
  "region_code" : "region-1",
  "flavor_id" : "3169caaf-6c2f-41d5-aadd-c8fc3d83597e",
  "flavor_ref" : "gaussdb.mysql.xlarge.arm.4",
  "max_connections" : 1500,
  "vcpus" : 1,
  "ram" : 4,
  "need_restart" : false,
  "priority" : 1,
  "created" : "2022-07-14T16:26:58+0800",
  "updated" : "2022-07-18T09:36:18+0800"
} ],
"time_zone" : "UTC+08:00",
"backup_used_space" : 0.24,
"az_mode" : "single",
"master_az_code" : "az1",
"maintenance_window" : "18:00-22:00",
"tags" : [ ],
"configuration_id" : "53570e0de54e40c5a15f331aa5sd2176pr07",
"dedicated_resource_id" : "",
"proxies" : [ {
  "pool_id" : "dab1cfc5150c4d1ca0e8c6596bfc0d8cpo01",
  "address" : "192.*.*",
  "name" : "proxy-name"
} ]
} ]
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.3.34 Modifying a Recycling Policy

Function

This API is used to modify a recycling policy. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

PUT /v3/{project_id}/instances/recycle-policy

Table 4-248 URI parameter

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .

Request Parameters

Table 4-249 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain the value, call the API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
Content-Type	Yes	String	Content type. Value: application/json
X-Language	No	String	Language.

Table 4-250 Request body parameter

Parameter	Mandatory	Type	Description
recycle_policy	No	Table 4-251 object	Recycling policy.

Table 4-251 RecyclePolicy

Parameter	Mandatory	Type	Description
retention_period_in_days	Yes	String	Retention period, in days. Value range: 1 to 7

Response Parameters

Status code: 400

Table 4-252 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-253 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Setting the retention period to 5 days during the recycling policy modification

```
POST https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/recycle-policy
{
  "recycle_policy": {
    "retention_period_in_days": 5
  }
}
```

Example Response

None

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.3.35 Querying a Recycling Policy

Function

This API is used to query a recycling policy. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/instances/recycle-policy

Table 4-254 URI parameter

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .

Request Parameters

Table 4-255 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain the value, call the API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
Content-Type	Yes	String	Content type. Value: application/json
X-Language	No	String	Language.

Response Parameters

Status code: 200

Table 4-256 Response body parameter

Parameter	Type	Description
recycle_policy	RecyclePolicy object	Recycling policy.

Table 4-257 RecyclePolicy

Parameter	Type	Description
retention_period_in_days	String	Retention period, in days. Value range: 1 to 7

Status code: 400

Table 4-258 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-259 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying a recycling policy

GET https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/recycle-policy

Example Response

Status code: 200

Success.

```
{
  "recycle_policy" : {
    "retention_period_in_days" : 5
  }
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.3.36 Querying Instances in the Recycle Bin

Function

This API is used to query instances in the recycle bin. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/instances/recycle-info

Table 4-260 URI parameter

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .

Table 4-261 Query parameters

Parameter	Mandatory	Type	Description
limit	No	Integer	Number of records to be queried. The default value is 10 . The value must be a positive integer. The minimum value is 1 and the maximum value is 100 .
offset	No	Integer	Index offset. If offset is set to N , the query starts from the $N + 1$ piece of data. The value is 0 by default, indicating that the query starts from the first piece of data. The value must be a number but cannot be a negative number.

Request Parameters

Table 4-262 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain the value, call the API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
Content-Type	Yes	String	Content type. Value: application/json
X-Language	No	String	Language.

Response Parameters

Status code: 200

Table 4-263 Response body parameters

Parameter	Type	Description
total_count	String	Total number of records.
instances	Array of RecycleInstanceV3 objects	Instances in the recycle bin.

Table 4-264 RecycleInstanceV3

Parameter	Type	Description
id	String	Instance ID.
name	String	Instance name.
ha_mode	String	Instance type.
engine_name	String	Engine name.
engine_version	String	Engine version.
pay_model	String	Billing mode.
create_at	Integer	Creation time.

Parameter	Type	Description
deleted_at	Integer	Deletion time.
volume_type	String	Storage type.
volume_size	String	Storage space.
data_vip	String	Virtual IP address of the data plane.
data_vip_ipv6	String	IPv6 address of the data plane.
enterprise_project_id	String	Enterprise project ID.
enterprise_project_name	String	Enterprise project name.
backup_level	String	Backup level.
recycle_backup_id	String	Backup ID.
recycle_status	String	Recycling status.

Status code: 400**Table 4-265** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500**Table 4-266** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying instances in the recycle bin

```
GET https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/recycle-info
```

Example Response

Status code: 200

Success.

```
{
  "total_count": 2,
  "instances": [ {
    "id": "090e539b45e047ee9cc17750b321ef7ein07",
    "name": "gauss-dd-single",
    "ha_mode": "StandSingle",
    "engine_name": "taurus",
    "engine_version": "2.0.51.240300",
    "pay_model": "0",
    "create_at": 1712656933705,
    "deleted_at": 1712659228276,
    "volume_type": "",
    "volume_size": "0",
    "data_vip": "172.16.1.234",
    "data_vip_ipv6": null,
    "enterprise_project_id": "0",
    "enterprise_project_name": "default",
    "backup_level": "2",
    "recycle_backup_id": "c62e218ccd6c49098baa925453c65e29br07",
    "recycle_status": "Active"
  }, {
    "id": "632423cc56c348bd967b3a03e7abdab9in07",
    "name": "gauss-dd-single",
    "ha_mode": "StandSingle",
    "engine_name": "taurus",
    "engine_version": "2.0.51.240300",
    "pay_model": "0",
    "create_at": 1712658210524,
    "deleted_at": 1712659158927,
    "volume_type": "",
    "volume_size": "0",
    "data_vip": "172.16.1.194",
    "data_vip_ipv6": null,
    "enterprise_project_id": "0",
    "enterprise_project_name": "default",
    "backup_level": "2",
    "recycle_backup_id": "70d03dc459304f7298c0f5b49286f37cbr07",
    "recycle_status": "Active"
  } ]
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.3.37 Changing Node Names in Batches

Function

This API is used to change node names in batches. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

PUT /v3/{project_id}/instances/{instance_id}/nodes/name

Table 4-267 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID.

Request Parameters

Table 4-268 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain the value, call the API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
Content-Type	Yes	String	Content type. Value: application/json
X-Language	No	String	Language.

Table 4-269 Request body parameter

Parameter	Mandatory	Type	Description
node_list	Yes	Array of SingleNodeInfo objects	Node information.

Table 4-270 SingleNodeInfo

Parameter	Mandatory	Type	Description
node_id	Yes	String	Node ID.
name	Yes	String	Node name. The value can contain 4 to 128 characters. Only digits, letters, hyphens (-), and underscores (_) are allowed.

Response Parameters

Status code: 200

Table 4-271 Response body parameter

Parameter	Type	Description
job_id	String	Workflow ID.

Status code: 400

Table 4-272 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-273 Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error message.

Example Request

Changing node names in batches

```
POST https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/61a4ea66210545909d74a05c27a7179ein07/nodes/name
```

```
{
  "node_list": [ {
    "node_id": "799a0f2fa49d4151bf2f7063c1fbba36no07",
    "name": "gauss-cdf5_node03"
  } ]
}
```

Example Response

Status code: 200

Success.

```
{
  "job_id": "dff1f289-4d23-4942-8d9f-463ea07c010d"
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.3.38 Querying Historical Records of Auto Scaling

Function

This API is used to query historical records of auto scaling. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/instances/{instance_id}/auto-scaling/history

Table 4-274 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID.

Table 4-275 Query parameters

Parameter	Mandatory	Type	Description
limit	No	String	Number of records to be queried. The default value is 20 .
offset	No	String	Index offset. If offset is set to <i>N</i> , the query starts from the <i>N</i> +1 piece of data. The value is 0 by default, indicating that the query starts from the first piece of data. The value must be a number but cannot be a negative number.

Request Parameters

Table 4-276 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain the value, call the API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
Content-Type	Yes	String	Content type. Value: application/json

Parameter	Mandatory	Type	Description
X-Language	No	String	Language.

Response Parameters

Status code: 200

Table 4-277 Response body parameters

Parameter	Type	Description
total_count	String	Total number of records.
records	Array of AutoScalingRecordInfo objects	Historical records of auto scaling.

Table 4-278 AutoScalingRecordInfo

Parameter	Type	Description
id	String	Record ID.
instance_id	String	Instance ID.
instance_name	String	Instance name.
scaling_type	String	Scaling type.
original_value	String	Original value.
target_value	String	Target value.
result	String	Scaling result.
create_at	String	Scaling time.

Status code: 400

Table 4-279 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-280 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying historical records of auto scaling

```
GET https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/61a4ea66210545909d74a05c27a7179ein07/auto-scaling/history
```

Example Response

Status code: 200

Success.

```
{
  "total_count": 1,
  "records": [ {
    "id": "2f5f3eeb-16c7-4b0c-bd44-4b2968275abe",
    "instance_id": "94bb6ce031424d02a1c61019d1d2298bin07",
    "instance_name": "gaussdbformysql-ins01",
    "scaling_type": "ENLARGE_FLAVOR",
    "original_value": "gaussdb.mysql.medium.x86.4",
    "target_value": "gaussdb.mysql.large.x86.4",
    "result": "SUCCESSFUL",
    "create_at": "2023-04-30 16:47:40.877"
  } ]
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.3.39 Setting a Policy for a Serverless DB Instance

Function

This API is used to set a policy for a serverless DB instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

PUT /v3/{project_id}/instances/{instance_id}/serverless/policy

Table 4-281 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID.

Request Parameters

Table 4-282 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain the value, call the API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
Content-Type	Yes	String	Content type. Value: application/json
X-Language	No	String	Language.

Table 4-283 Request body parameters

Parameter	Mandatory	Type	Description
min_vcpus	Yes	Integer	Minimum number of vCPUs on a single node. The value range can be obtained by calling the Querying Database Specifications API.
max_vcpus	Yes	Integer	Maximum number of vCPUs on a single node. The value range can be obtained by calling the Querying Database Specifications API.

Response Parameters

Status code: 400

Table 4-284 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-285 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Setting the minimum number of vCPUs to 1 and the maximum number of vCPUs to 4

```
PUT https://{Endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/096c0fc43e804757b59946b80dc27f8bin07/serverless/policy
```

```
{
  "min_vcpus" : 1,
  "max_vcpus" : 4
}
```


Example Response

None

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.3.40 Changing the Failover Priority of a Read Replica

Function

This API is used to change the failover priority of a read replica. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

PUT /v3/{project_id}/instances/{instance_id}/nodes/{node_id}/priority

Table 4-286 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID.
node_id	Yes	String	Node ID.

Request Parameters

Table 4-287 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain the value, call the API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
Content-Type	Yes	String	Content type. Value: application/json
X-Language	No	String	Language.

Table 4-288 Request body parameter

Parameter	Mandatory	Type	Description
priority	Yes	String	Failover priority. The value can be -1 or any number ranging from 1 to 16. If the value is a positive number, a smaller value indicates a higher priority. This priority determines the order in which read replicas are promoted when recovering from a primary node failure. Read replicas with the same priority have the same probability of being promoted to the new primary node. If the value is -1 , the read replica does not participate in a failover. After the priority of a read replica is set to -1 , ensure that a single-AZ instance still has at least one read replica or that the remaining nodes of a cross-AZ instance are in different AZs.

Response Parameters

Status code: 200

Table 4-289 Response body parameter

Parameter	Type	Description
job_id	String	Workflow ID.

Status code: 400

Table 4-290 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-291 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Changing the read replica failover priority to 2

```
PUT https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/61a4ea66210545909d74a05c27a7179ein07//nodes/ss62c18799854a919bab633874c159dfno01/priority
{
  "priority" : 2
}
```

Example Response

Status code: 200

Success.

```
{
  "job_id" : "b054f3e1-64f8-4219-ad48-f9ac494c6983"
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.3.41 Querying an EIP

Function

This API is used to query an EIP. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/instances/{instance_id}/eip

Table 4-292 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID.

Request Parameters

Table 4-293 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain the value, call the API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
Content-Type	Yes	String	Content type. Value: application/json
X-Language	No	String	Language.

Response Parameters

Status code: 200**Table 4-294** Response body parameters

Parameter	Type	Description
can_enable_public_access	Boolean	Whether public access can be enabled.
id	String	EIP ID.
type	String	Network type of the EIP.
port_id	String	Port ID.
public_ip_address	String	EIP.
private_ip_address	String	Private IP address.
status	String	EIP status.
tenant_id	String	Tenant ID.
create_time	String	Creation time.
bandwidth_id	String	Bandwidth ID.
bandwidth_name	String	Bandwidth name.

Parameter	Type	Description
bandwidth_size	String	Bandwidth size.
bandwidth_share_type	String	Bandwidth type. The value can be PER or WHOLE .
profile	Object	Additional parameters, including the order ID and product ID. If profile is not empty, the EIP is billed on a yearly/monthly basis.

Status code: 400

Table 4-295 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-296 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying an EIP

```
GET https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/12a49c2dc32648df8dd25e2976f70180in07/eip
```

Example Response

Status code: 200

Success.

```
{
  "can_enable_public_access" : true,
  "id" : "45a0ed37-cfa7-4403-8aeb-d720b4e831cf",
  "type" : "5_bgp",
  "port_id" : "2c02dc5b-a136-4921-b7ad-27e084548616",
  "public_ip_address" : "10.83.35.151",
  "private_ip_address" : "172.16.1.137",
```

```
"status": "ACTIVE",
"tenant_id": "23a50154cf494ec9ad6883979a12db0a",
"create_time": "2024-04-09 13:42:11",
"bandwidth_id": "2a4b2bc5-2a0a-42df-8f13-2f8e3d88bbb2",
"bandwidth_name": "bandwidth-d3f4",
"bandwidth_size": 1,
"bandwidth_share_type": "PER",
"profile": { }
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.4 Backup Management

4.4.1 Configuring a Same-Region Backup Policy

Function

This API is used to configure a same-region backup policy. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

PUT /v3/{project_id}/instances/{instance_id}/backups/policy/update

Table 4-297 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .

Parameter	Mandatory	Type	Description
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-298 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Table 4-299 Request body parameters

Parameter	Mandatory	Type	Description
backup_policy	Yes	MySQLBackup Policy object	Database backup policy.

Table 4-300 MysqlBackupPolicy

Parameter	Mandatory	Type	Description
start_time	Yes	String	<p>Backup time window. Automated backups will be triggered during the backup time window.</p> <p>The value cannot be empty. It must be a valid value in the "hh:mm-HH:MM" format. The current time is in the UTC format.</p> <ul style="list-style-type: none"> • The HH value must be 1 greater than the hh value. • The values of mm and MM must be the same and must be set to 00. <p>Example: 21:00–22:00</p>
keep_days	Yes	Integer	<p>Backup retention days. Value range: 1–732.</p> <p>You can also contact customer service to extend the retention period to 3,660 days.</p>
period	Yes	String	<p>Backup cycle configuration. Data will be automatically backed up on the selected days every week.</p> <p>The value is a list of numbers separated by commas (,), where each number plus one represents a day of the week for automated backups.</p> <p>For example, 1,2,3,4,5,6,7 indicates that data is backed up every day from Tuesday to Monday.</p>
retention_num_backup_level1	No	Integer	<p>Number of retained level-1 backups. The value can be 0 or 1. The default value is 0. This parameter is required only when the level-1 backup function is enabled.</p>

Response Parameters

Status code: 200

Table 4-301 Response body parameters

Parameter	Type	Description
status	String	Status information. Values: <ul style="list-style-type: none">● BUILDING: Modification in progress● COMPLETED: Modification completed● FAILED: Modification failed
instance_id	String	Instance ID, which is compliant with the UUID format.
instance_name	String	Instance name.

Status code: 400**Table 4-302** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500**Table 4-303** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Modifying the automated backup policy of the DB instance (Data is backed up from 19:00 to 20:00 every Monday to Friday. Backup files are stored for seven days.)

```
PUT https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/
ba62a0b83a1b42bfab275829d86ac0fdin07/backups/policy/update
{
  "backup_policy": {
    "keep_days": 7,
    "start_time": "19:00-20:00",
    "period": "1,2,3,4,5"
  }
}
```

Example Response

Status code: 200

Success.

```
{
  "status" : "COMPLETED",
  "instance_id" : "ba62a0b83a1b42bfab275829d86ac0fdin07",
  "instance_name" : "gauss-mysql"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.4.2 Creating a Manual Backup

Function

This API is used to create a manual backup. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

POST /v3/{project_id}/backups/create

Table 4-304 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .

Request Parameters

Table 4-305 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Table 4-306 Request body parameters

Parameter	Mandatory	Type	Description
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.
name	Yes	String	Backup name. The name must start with a letter and consist of 4 to 64 characters. Only letters (case-sensitive), digits, hyphens (-), and underscores (_) are allowed.
description	No	String	Backup description. It contains up to 256 characters and cannot contain the following special characters: >!<"&'='

Response Parameters

Status code: 201

Table 4-307 Response body parameters

Parameter	Type	Description
backup	backup object	Backup information.
job_id	String	Task ID.

Table 4-308 backup

Parameter	Type	Description
id	String	Backup ID.
name	String	Backup name.
description	String	Backup description.
begin_time	String	Backup start time in the "yyyy-mm-ddThh:mm:ssZ" format, where "T" indicates the start time of the time field, and "Z" indicates the time zone offset.
status	String	Backup status. Values: <ul style="list-style-type: none"> ● BUILDING: Backup in progress ● COMPLETED: Backup completed ● FAILED: Backup failed ● AVAILABLE: Backup available Enumerated values: <ul style="list-style-type: none"> ● BUILDING ● COMPLETED ● FAILED ● AVAILABLE
type	String	Backup type. Value: manual (manual full backup) Enumerated values: manual
instance_id	String	Instance ID, which is compliant with the UUID format.

Status code: 400

Table 4-309 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500**Table 4-310** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Creating a manual backup

```
POST https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/backups/create
{
  "instance_id": "07033b125fd94a8a96896f8bcfee6ddain07",
  "name": "backup-1",
  "description": "Manual backup"
}
```

Example Response

Status code: 201

Success.

```
{
  "backup": {
    "id": "2f4ddb93-b901-4b08-93d8-1d2e472f30fe",
    "name": "backup-1",
    "description": "Manual backup",
    "begin_time": "2020-07-07T01:17:05+0800",
    "status": "BUILDING",
    "type": "manual",
    "instance_id": "07033b125fd94a8a96896f8bcfee6ddain07"
  },
  "job_id": "e0fbbfc8-1ac4-4721-b9e9-7dd685c5bdd7"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.4.3 Querying Full Backups

Function

This API is used to query backups according to search criteria. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/backups

Table 4-311 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Explanation: Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID . Constraints: None Value range: The value can contain 32 characters. Only letters and digits are allowed. Default value: None

Table 4-312 Query parameters

Parameter	Mandatory	Type	Description
instance_id	No	String	<p>Explanation: Instance ID, which uniquely identifies an instance.</p> <p>Constraints: None</p> <p>Value range: The value can contain 36 characters with a suffix of in07. Only letters and digits are allowed.</p> <p>Default value: None</p>
backup_id	No	String	<p>Explanation: Backup ID, which uniquely identifies a backup.</p> <p>Constraints: None</p> <p>Value range: The value can contain 36 characters with a suffix of br07. Only letters and digits are allowed.</p> <p>Default value: None</p>
backup_type	No	String	<p>Explanation: Backup type.</p> <p>Constraints: None</p> <p>Value range:</p> <ul style="list-style-type: none"> • auto: automated full backup • manual: manual full backup <p>Default value: None</p>

Parameter	Mandatory	Type	Description
offset	No	String	<p>Explanation: Index offset. The query starts from the next piece of data indexed by this parameter.</p> <p>Constraints: The value must be an integer and cannot be a negative number.</p> <p>Value range: ≥0</p> <p>Default value: 0</p>
limit	No	String	<p>Explanation: Number of records to be queried.</p> <p>Constraints: The value must be an integer and cannot be a negative number.</p> <p>Value range: 1-100</p> <p>Default value: 100</p>
begin_time	No	String	<p>Explanation: Query start time in the "yyyy-mm-ddThh:mm:ssZ" format. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, if the time zone offset is one hour, the value of Z is +0100.</p> <p>Constraints: None</p> <p>Value range: The time is earlier than the current time.</p> <p>Default value: None</p>

Parameter	Mandatory	Type	Description
end_time	No	String	<p>Explanation: Query end time in the "yyyy-mm-ddThh:mm:ssZ" format. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, if the time zone offset is one hour, the value of Z is +0100.</p> <p>Constraints: None</p> <p>Value range: The time is earlier than the current time and later than the start time.</p> <p>Default value: None</p>
name	No	String	<p>Explanation: Backup name.</p> <p>Constraints: None</p> <p>Value range: The name must start with a letter and consist of 4 to 64 characters. Only letters (case-sensitive), digits, hyphens (-), and underscores (_) are allowed.</p> <p>Default value: None</p>

Parameter	Mandatory	Type	Description
instance_name	No	String	<p>Explanation: Instance name.</p> <p>Constraints: None</p> <p>Value range: The name must start with a letter and consist of 4 to 64 characters. Only letters (case-sensitive), digits, hyphens (-), and underscores (_) are allowed.</p> <p>Default value: None</p>

Request Parameters

Table 4-313 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	<p>Explanation: User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the token value.</p> <p>Constraints: None</p> <p>Value range: None</p> <p>Default value: None</p>

Parameter	Mandatory	Type	Description
X-Language	No	String	<p>Explanation: Request language type.</p> <p>Constraints: None</p> <p>Value range:</p> <ul style="list-style-type: none"> • en-us • zh-cn <p>Default value: en-us</p>

Response Parameters

Status code: 200

Table 4-314 Response body parameters

Parameter	Type	Description
backups	Array of backups objects	<p>Explanation: Backup information.</p> <p>Value range: None</p>
total_count	Long	<p>Explanation: Total number of backup files.</p> <p>Value range: ≥0</p>

Table 4-315 backups

Parameter	Type	Description
id	String	<p>Explanation: Backup ID.</p> <p>Value range: The value can contain 36 characters with a suffix of br07. Only letters and digits are allowed.</p>

Parameter	Type	Description
name	String	<p>Explanation: Backup name.</p> <p>Value range: The name must start with a letter and consist of 4 to 64 characters. Only letters (case-sensitive), digits, hyphens (-), and underscores (_) are allowed.</p>
begin_time	String	<p>Explanation: Backup start time in the "yyyy-mm-ddThh:mm:ssZ" format.</p> <p>T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, if the time zone offset is one hour, the value of Z is +0100.</p> <p>Value range: None</p>
end_time	String	<p>Explanation: Backup end time in the "yyyy-mm-ddThh:mm:ssZ" format.</p> <p>T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, if the time zone offset is one hour, the value of Z is +0100.</p> <p>Value range: None</p>
status	String	<p>Explanation: Backup status.</p> <p>Value range:</p> <ul style="list-style-type: none"> ● BUILDING: Backup in progress ● COMPLETED: Backup completed ● FAILED: Backup failed ● AVAILABLE: Backup available
take_up_time	Integer	<p>Explanation: Backup duration in minutes.</p> <p>Value range: ≥ 0</p>

Parameter	Type	Description
type	String	<p>Explanation: Backup type.</p> <p>Value range:</p> <ul style="list-style-type: none"> ● auto: automated full backup ● manual: manual full backup
size	Long	<p>Explanation: Backup size in MB.</p> <p>Value range: ≥0</p>
datastore	MysqlDatastore object	<p>Explanation: Database information.</p>
instance_id	String	<p>Explanation: Instance ID, which uniquely identifies an instance.</p> <p>Value range: The value can contain 36 characters with a suffix of in07. Only letters and digits are allowed.</p>
instance_name	String	<p>Explanation: Instance name.</p> <p>Value range: The name must start with a letter and consist of 4 to 64 characters. Only letters (case-sensitive), digits, hyphens (-), and underscores (_) are allowed.</p>
backup_level	String	<p>Explanation: Backup level. This parameter is returned when the level-1 backup function is enabled.</p> <p>Value range:</p> <ul style="list-style-type: none"> ● 0: Backup being created or creation failed ● 1: level-1 backup ● 2: level-2 backup
description	String	<p>Explanation: Description of the backup file.</p> <p>Value range: None</p>

Table 4-316 MysqlDatastore

Parameter	Type	Description
type	String	Explanation: DB engine. Value range: gaussdb-mysql
version	String	Explanation: DB version. Value range: 8.0

Status code: 400

Table 4-317 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-318 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying automated backups generated from July 6, 2020 to July 16, 2020

```
GET https://{endpoint}/v3/97b026aa9cc4417888c14c84a1ad9860/backups?instance_id=43e4feaab48f11e89039fa163ebaa7e4br01&backup_id=c0c9f155c7b7423a9d30f0175998b63bbr01&backup_type=auto&offset=0&limit=10&begin_time=2020-07-06T10:41:14+0800&end_time=2020-07-16T10:41:14+0800
```

Example Response

Status code: 200

Success.

```
{
  "backups": [ {
```

```

    "id" : "1fe4feaab48f11e6654hfa163eba87e4b66u",
    "name" : "TaurusDB-gauss-e747-20200705185048266",
    "begin_time" : "2018-08-06T12:41:14+0800",
    "end_time" : "2018-08-06T12:45:14+0800",
    "take_up_time" : 2,
    "status" : "COMPLETED",
    "type" : "auto",
    "size" : 2803,
    "datastore" : {
      "type" : "GaussDB(for MySQL)",
      "version" : "8.0"
    },
    "instance_id" : "43e4feaab48f11e89039fa163ebaa7e4br01",
    "instance_name" : "TaurusDB-gauss-e747",
    "backup_level" : "2"
  } ],
  "total_count" : 1
}

```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.4.4 Querying an Automated Backup Policy

Function

This API is used to query an automated backup policy. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/instances/{instance_id}/backups/policy

Table 4-319 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-320 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Response Parameters

Status code: 200

Table 4-321 Response body parameters

Parameter	Type	Description
backup_policy	BackupPolicy object	Backup policy information.

Table 4-322 BackupPolicy

Parameter	Type	Description
keep_days	Integer	Backup retention days. Value range: 1–732. You can also contact customer service to extend the retention period to 3,660 days. <ul style="list-style-type: none"> • Minimum value: 1 • Maximum value: 732
start_time	String	Backup time window. Automated backups will be triggered during the backup time window. The value must be a valid value in the "hh:mm-HH:MM" format. The current time is in the UTC format.

Parameter	Type	Description
period	String	Backup cycle configuration. Data will be automatically backed up on the selected days every week. The value is a list of numbers separated by commas (,), where each number plus one represents a day of the week for automated backups. For example, 1,2,3,4,5,6,7 indicates that data is backed up every day from Tuesday to Monday.
retention_number_backup_level1	Integer	Number of retained level-1 backups. This parameter is returned when level-1 backup is enabled.

Status code: 400

Table 4-323 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-324 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying the automated backup policy of a DB instance

```
GET https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/61a4ea66210545909d74a05c27a7179ein07/backups/policy
```

Example Response

Status code: 200

Success.

```
{
  "backup_policy" : {
```

```
"keep_days" : "7",  
"start_time" : "19:00-20:00",  
"period" : "1,2",  
"retention_num_backup_level1" : 1  
}  
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.4.5 Deleting a Manual Backup

Function

This API is used to delete a manual backup. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

DELETE /v3/{project_id}/backups/{backup_id}

Table 4-325 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
backup_id	Yes	String	Backup file ID. To obtain this value, see Querying Full Backups .

Request Parameters

Table 4-326 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Response Parameters

Status code: 200

Table 4-327 Response body parameters

Parameter	Type	Description
backup_id	String	Backup ID.
backup_name	String	Backup name.

Status code: 400

Table 4-328 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-329 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Deleting a manual backup

```
DELETE https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/backups/  
1fe4feaab48f11e6654hfa163eba87e4b66
```

Example Response

Status code: 200

Success.

```
{  
  "backup_id" : "b1182ccdda034f2b9535f3dca5c47e71br07",  
  "backup_name" : "backup-f3c1"  
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.4.6 Restoring Data to the Original Instance or an Existing Instance

Function

This API is used to restore data to the original instance or an existing instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

Constraints

DB instances will not be displayed unless they have the same DB engine type, version, and table name case sensitivity as the original DB instance.

URI

POST /v3/{project_id}/instances/restore

Table 4-330 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .

Request Parameters

Table 4-331 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Table 4-332 Request body parameters

Parameter	Mandatory	Type	Description
target_instance_id	Yes	String	Target instance ID.
source_instance_id	Yes	String	Source instance ID.

Parameter	Mandatory	Type	Description
type	Yes	String	Restoration type. Values: <ul style="list-style-type: none"> • backup: indicates restoration from backup files. backup_id is mandatory when type is not mandatory. • timestamp: indicates point-in-time restoration. In this mode, restore_time is mandatory when type is mandatory.
backup_id	No	String	ID of the backup to be restored. This parameter must be specified when the backup file is used for restoration. To obtain this value, see Querying Full Backups .
restore_time	No	Long	Time point of data restoration in the UNIX timestamp format. The unit is millisecond and the time zone is UTC.

Response Parameters

Status code: 200

Table 4-333 Response body parameters

Parameter	Type	Description
job_id	String	Workflow ID.

Status code: 400

Table 4-334 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-335 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

- Restoring data to the original instance using a backup file
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/restore
{
 "target_instance_id" : "7033e7c3cf93438797d44ad7ae0a7d95in07",
 "source_instance_id" : "690e08a7c3854c218df0e59de3b0c6cein07",
 "backup_id" : "7ffbf305376b4cbea0ae491257b6aaf9br07",
 "type" : "backup"
}
- Restoring data to the original instance through PITR
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/restore
{
 "target_instance_id" : "7033e7c3cf93438797d44ad7ae0a7d95in07",
 "source_instance_id" : "690e08a7c3854c218df0e59de3b0c6cein07",
 "restore_time" : 1673852043000,
 "type" : "timestamp"
}
- Restoring data to an existing instance using a backup file
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/restore
{
 "target_instance_id" : "7033e7c3cf93438797d44ad7ae0a7d95in07",
 "source_instance_id" : "690e08a7c3854c218df0e59de3b0c6cein07",
 "backup_id" : "be4ddfd7e2b94640b5e2cb44efb30b22br07",
 "type" : "backup"
}
- Restoring data to an existing instance through PITR
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/restore
{
 "target_instance_id" : "7033e7c3cf93438797d44ad7ae0a7d95in07",
 "source_instance_id" : "690e08a7c3854c218df0e59de3b0c6cein07",
 "restore_time" : 1673852043000,
 "type" : "timestamp"
}

Example Response

Status code: 200

Success.

```
{  
  "job_id" : "dff1d289-4d03-4942-8b9f-463ea07c000d"  
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.4.7 Querying the Restoration Time Range

Function

This API is used to query the restoration time range of an instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/instances/{instance_id}/restore-time

Table 4-336 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Table 4-337 Query parameters

Parameter	Mandatory	Type	Description
date	No	String	Date to be queried. The value is in the "yyyy-mm-dd" format, and the time zone is UTC.

Request Parameters

Table 4-338 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Response Parameters

Status code: 200

Table 4-339 Response body parameters

Parameter	Type	Description
restore_times	Array of RestoreTimeInfo objects	Restoration time ranges.

Table 4-340 RestoreTimeInfo

Parameter	Type	Description
start_time	Integer	Start time of the restoration time range in the UNIX timestamp format. The unit is millisecond and the time zone is UTC.
end_time	Integer	End time of the restoration time range in the UNIX timestamp format. The unit is millisecond and the time zone is UTC.

Status code: 400

Table 4-341 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500**Table 4-342** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying the restoration time range of the DB instance on January 31, 2023

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
096c0fc43e804757b59946b80dc27f8bin07/restore-time?date=2023-01-31
```

Example Response

Status code: 200

Success.

```
{  
  "restore_times" : [ {  
    "start_time" : 1675149246000,  
    "end_time" : 1675094400000  
  } ]  
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.4.8 Enabling or Disabling Encrypted Backup

Function

This API is used to enable or disable encrypted backup. Before calling this API:

- Learn how to [authorize and authenticate](#) it.

- Obtain the required [region and endpoint](#).

URI

POST /v3/{project_id}/instances/{instance_id}/backups/encryption

Table 4-343 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-344 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Table 4-345 Request body parameters

Parameter	Mandatory	Type	Description
encryption_status	Yes	String	Whether to enable or disable encrypted backup. Value (case insensitive): <ul style="list-style-type: none"> • on: enabled • off: disabled
type	No	String	Encryption type. Currently, only kms (case-insensitive) is supported. This parameter is mandatory when encrypted backup is enabled and is not required when encrypted backup is disabled.
kms_key_id	No	String	KMS ID. This parameter is mandatory when encrypted backup is enabled and is not required when encrypted backup is disabled. To obtain the value, see the response parameter key_id in the API for creating a key .

Response Parameters

Status code: 200

Table 4-346 Response body parameters

Parameter	Type	Description
encryption_status	String	Whether encrypted backup is enabled or disabled. Values: <ul style="list-style-type: none"> • on: Encrypted backup is enabled • off: Encrypted backup is disabled.

Status code: 400

Table 4-347 Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error message.

Status code: 500

Table 4-348 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

- Enabling encrypted backup**
 POST https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/7033e7c3cf93438797d44ad7ae0a7d95in07/backups/encryption

```
{
  "type": "kms",
  "kms_key_id": "b82fa43f-f6e8-4ec4-9c31-231bc547c526",
  "encryption_status": "on"
}
```
- Disabling encrypted backup**
 POST https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/7033e7c3cf93438797d44ad7ae0a7d95in07/backups/encryption

```
{
  "encryption_status": "off"
}
```

Example Response

Status code: 200

Success.

```
{
  "encryption_status": "on"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.4.9 Checking Whether Encrypted Backup Is Enabled

Function

This API is used to check whether encrypted backup is enabled. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/instances/{instance_id}/backups/encryption

Table 4-349 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-350 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Response Parameters

Status code: 200

Table 4-351 Response body parameters

Parameter	Type	Description
encryption_status	String	Whether encrypted backup is enabled or disabled. Values: <ul style="list-style-type: none"> on: Encrypted backup is enabled. off: Encrypted backup is disabled.

Status code: 400

Table 4-352 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-353 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Checking whether encrypted backup is enabled

```
GET https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/7033e7c3cf93438797d44ad7ae0a7d95in07/backups/encryption
```

Example Response

Status code: 200

Success.

```
{
  "encryption_status" : "on"
}
```


Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.4.10 Querying Incremental Backups

Function

This API is used to query incremental backups. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/instances/{instance_id}/incremental-backups

Table 4-354 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Table 4-355 Query parameters

Parameter	Mandatory	Type	Description
offset	No	String	Index offset. If offset is set to <i>N</i> , the resource query starts from the <i>N</i> +1 piece of data. The value is 0 by default, indicating that the query starts from the first piece of data. The value cannot be a negative number.
limit	No	String	Number of records to be queried. Value: 10 (default value), 20 , or 50 .

Parameter	Mandatory	Type	Description
begin_time	No	String	<p>Query start time. The format is "yyyy-mm-ddThh:mm:ssZ".</p> <p>T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, if the time zone offset is one hour, the value of Z is +0100.</p> <p>When begin_time is not empty, end_time is mandatory.</p>
end_time	No	String	<p>Query end time. The format is "yyyy-mm-ddThh:mm:ssZ" and the end time must be later than the start time.</p> <p>T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, if the time zone offset is one hour, the value of Z is +0100.</p> <p>When end_time is not empty, begin_time is mandatory.</p>

Request Parameters

Table 4-356 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	<p>User token.</p> <p>It can be obtained by calling the IAM API used to obtain a user token.</p> <p>The value of X-Subject-Token in the response header is the token value.</p>
X-Language	No	String	<p>Request language type. The default value is en-us.</p> <p>Values:</p> <ul style="list-style-type: none"> • en-us • zh-cn

Response Parameters

Status code: 200

Table 4-357 Response body parameters

Parameter	Type	Description
backups	Array of IncrementalBackups objects	Backup information.
total_count	Long	Total number of backup files.

Table 4-358 IncrementalBackups

Parameter	Type	Description
id	String	Backup ID.
name	String	Backup name.
begin_time	String	Backup start time in the "yyyy-mm-ddThh:mm:ssZ" format. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, if the time zone offset is one hour, the value of Z is +0100 .
end_time	String	Backup end time in the "yyyy-mm-ddThh:mm:ssZ" format. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, if the time zone offset is one hour, the value of Z is +0100 .
size	Number	Backup size, in KB.
instance_id	String	Instance ID.

Status code: 400

Table 4-359 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-360 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying incremental backups generated from July 6, 2022 to July 16, 2022

```
GET https://{endpoint}/v3/97b026aa9cc4417888c14c84a1ad9860/instances/  
61a4ea66210545909d74a05c27a7179ein07/incremental-backups?  
offset=0&limit=10&begin_time=2022-07-06T10:41:14+0800&end_time=2022-07-16T10:41:14+0800
```

Example Response

Status code: 200

Success.

```
{  
  "backups": [ {  
    "id": "f0d2aea28d26t4848b8c84ed3fea1822fbr07",  
    "name": "TaurusDB--20230728181555006",  
    "begin_time": "2022-07-07T12:41:14+0800",  
    "end_time": "2022-07-08T12:45:14+0800",  
    "size": 0.109375,  
    "instance_id": "61a4ea66210545909d74a05c27a7179ein07"  
  } ],  
  "total_count": 1  
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.4.11 Configuring a Cross-Region Backup Policy

Function

This API is used to configure a cross-region backup policy. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

PUT /v3/{project_id}/instances/{instance_id}/backups/offsite-policy

Table 4-361 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-362 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Table 4-363 Request body parameter

Parameter	Mandatory	Type	Description
backup_policy	Yes	UpdateBackuppOffsitePolicyInfo object	Backup policy information.

Table 4-364 UpdateBackupOffsitePolicyInfo

Parameter	Mandatory	Type	Description
open_auto_backup	Yes	Boolean	Whether to enable cross-region full backup. <ul style="list-style-type: none"> • true: Enable cross-region full backup. • false: Disable cross-region full backup.
open_incremental_backup	Yes	Boolean	Whether to enable cross-region incremental backup. <ul style="list-style-type: none"> • true: Enable cross-region incremental backup. This function can be enabled only when open_auto_backup is enabled. • false: Disable cross-region incremental backup.
destination_project_id	Yes	String	Target project ID for the cross-region backup policy. Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
destination_region	Yes	String	Destination region for the cross-region backup policy.
keep_days	Yes	Integer	Backup retention days. Value range: 1 to 1825

Response Parameters

Status code: 200

Table 4-365 Response body parameters

Parameter	Type	Description
result	String	Returned result.

Status code: 400

Table 4-366 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-367 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Configuring a cross-region backup policy

PUT https://{endpoint}/v3/97b026aa9cc4417888c14c84a1ad9860/instances/
61a4ea66210545909d74a05c27a7179ein07/backups/offsite-policy

```
{
  "backup_policy" : {
    "open_auto_backup" : true,
    "open_incremental_backup" : false,
    "destination_project_id" : "fd710c89089a448aa2e666ab15817090",
    "destination_region" : "cn-north-7",
    "keep_days" : 1
  }
}
```

Example Response

Status code: 200

Success.

```
{
  "result" : "success"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.4.12 Restoring Tables to a Specified Point in Time

Function

This API is used to restore tables to a specified point in time. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

POST /v3/{project_id}/instances/{instance_id}/backups/restore/tables

Table 4-368 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-369 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Table 4-370 Request body parameter

Parameter	Mandatory	Type	Description
restore_time	Yes	String	Backup time, in timestamp format.
restore_tables	Yes	Array of CreateRestoreDatabaseTableInfo objects	Database information.
last_table_info	No	String	Whether the data is restored to the most recent table. <ul style="list-style-type: none"> • true: most recent table. • false (default value): time-specific table

Table 4-371 CreateRestoreDatabaseTableInfo

Parameter	Mandatory	Type	Description
database	Yes	String	Database name.
tables	Yes	Array of CreateRestoreTableInfo objects	Table information.

Table 4-372 CreateRestoreTableInfo

Parameter	Mandatory	Type	Description
old_name	Yes	String	Original table name before the restoration.
new_name	Yes	String	Table name after the restoration.

Response Parameters

Status code: 200

Table 4-373 Response body parameters

Parameter	Type	Description
job_id	String	Task ID.

Status code: 400**Table 4-374** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500**Table 4-375** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Restoring tables to a point in time

```
POST https://{endpoint}/v3/97b026aa9cc4417888c14c84a1ad9860/instances/  
61a4ea66210545909d74a05c27a7179ein07/backups/restore/tables
```

```
{  
  "restore_time": 1690890940000,  
  "last_table_info": true,  
  "restore_tables": [ {  
    "database": "test_db_1",  
    "tables": [ {  
      "new_name": "t3_1690899914000",  
      "old_name": "t3"  
    } ]  
  } ]  
}
```

Example Response

Status code: 200

Success.

```
{  
  "job_id": "9c77973c-9332-4fbc-bb4d-b76760dbc9b2"  
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.4.13 Querying Tables for Table-level Point-in-Time Recovery

Function

This API is used to query available tables for table-level point-in-time recovery (PITR). Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/instances/{instance_id}/backups/restore/tables

Table 4-376 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Table 4-377 Query parameters

Parameter	Mandatory	Type	Description
restore_time	Yes	String	Backup time, in timestamp format. To obtain this value, see Querying the Restoration Time Range .
last_table_info	Yes	String	Whether data is restored to the most recent table. <ul style="list-style-type: none">• true: most recent table• false: time-specific table
database_name	No	String	Database name, which is used for fuzzy match.
table_name	No	String	Table name, which is used for fuzzy match.

Request Parameters

Table 4-378 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Response Parameters

Status code: 200

Table 4-379 Response body parameters

Parameter	Type	Description
total_databases	Integer	Total number of databases.
databases	Array of RestoreDatabaseInfos objects	Database information.

Table 4-380 RestoreDatabaseInfos

Parameter	Type	Description
name	String	Database name.
total_tables	Integer	Total number of tables.

Parameter	Type	Description
tables	Array of RestoreDatabaseTableInfo objects	Table information.

Table 4-381 RestoreDatabaseTableInfo

Parameter	Type	Description
name	String	Table name.

Status code: 400

Table 4-382 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-383 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying tables for table-level point-in-time recovery

```
GET https://{endpoint}/v3/97b026aa9cc4417888c14c84a1ad9860/instances/61a4ea66210545909d74a05c27a7179ein07/backups/restore/tables?database_name=test&last_table_info=true&restore_time=1690890940000&table_name=t
```

Example Response

Status code: 200

Success.

```
{
  "total_databases" : 1,
```

```
"databases": [ {  
  "name": "test_db_1",  
  "total_tables": 1,  
  "tables": [ {  
    "name": "t3"  
  } ]  
} ]  
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.5 Parameter Template Management

4.5.1 Querying Parameter Templates

Function

This API is used to query parameter templates, including all databases' default and custom parameter templates. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/configurations

Table 4-384 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Explanation: Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID . Constraints: None Value range: The value can contain 32 characters. Only letters and digits are allowed. Default value: None

Table 4-385 Query parameters

Parameter	Mandatory	Type	Description
offset	No	Integer	Explanation: Index offset. The query starts from the next piece of data indexed by this parameter. Constraints: The value must be an integer and cannot be a negative number. Value range: ≥ 0 Default value: 0

Parameter	Mandatory	Type	Description
limit	No	Integer	Explanation: Number of records to be queried. Constraints: The value must be an integer and cannot be a negative number. Value range: 1-100 Default value: 100

Request Parameters

Table 4-386 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Explanation: User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value. Constraints: None Value range: None Default value: None

Parameter	Mandatory	Type	Description
X-Language	No	String	<p>Explanation: Request language type.</p> <p>Constraints: None</p> <p>Value range:</p> <ul style="list-style-type: none"> • en-us • zh-cn <p>Default value: en-us</p>

Response Parameters

Status code: 200

Table 4-387 Response body parameters

Parameter	Type	Description
configurations	Array of ConfigurationSummary objects	<p>Explanation: Parameter template information.</p>
total_count	Integer	<p>Explanation: Total number of parameter templates.</p> <p>Value range: ≥0</p>

Table 4-388 ConfigurationSummary

Parameter	Type	Description
id	String	<p>Explanation: Parameter template ID.</p> <p>Value range: The value can contain 36 characters, starting with a UUID and ending with pr07. Only letters and digits are allowed.</p>

Parameter	Type	Description
name	String	<p>Explanation: Parameter template name.</p> <p>Value range: None</p>
datastore_version_name	String	<p>Explanation: DB version.</p> <p>Value range: 8.0</p>
datastore_name	String	<p>Explanation: Database name.</p> <p>Value range: GaussDB(for MySQL)</p>
created	String	<p>Explanation: Time when the parameter template was created. The format is "yyyy-MM-ddTHH:mm:ssZ".</p> <p>T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, if the time zone offset is one hour, the value of Z is +0100.</p> <p>Value range: None</p>
updated	String	<p>Explanation: Time when the parameter template was updated. The format is "yyyy-MM-ddTHH:mm:ssZ".</p> <p>T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, if the time zone offset is one hour, the value of Z is +0100.</p> <p>Value range: None</p>
user_defined	Boolean	<p>Explanation: Whether the parameter template is a custom template.</p> <p>Value range:</p> <ul style="list-style-type: none"> ● false: The parameter template is a default template. ● true: The parameter template is a custom template.

Parameter	Type	Description
description	String	Explanation: Parameter template description. Value range: None

Status code: 400

Table 4-389 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-390 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying parameter templates

GET <https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/configurations>

Example Response

Status code: 200

Success.

```
{
  "total_count" : 1,
  "configurations" : [ {
    "id" : "887ea0d1bb0843c49e8d8e5a09a95652pr07",
    "name" : "configuration_test",
    "description" : "configuration_test",
    "datastore_version_name" : "8.0",
    "datastore_name" : "GaussDB(for MySQL)",
    "created" : "2019-05-15T11:53:34+0000",
    "updated" : "2019-05-15T11:53:34+0000",
    "user_defined" : true
  }, {
    "id" : "3bc1e9cc0d34404b9225ed7a58fb284epr07",
```

```
"name" : "Default-GaussDBforMySQL",
"description" : "Default parameter template for GaussDBforMySQL",
"datastore_version_name" : "8.0",
"datastore_name" : "GaussDB(for MySQL)",
"created" : "2019-05-27T03:38:51+0000",
"updated" : "2019-05-27T03:38:51+0000",
"user_defined" : false
} ]
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.5.2 Creating a Parameter Template

Function

This API is used to create a parameter template. The following information needs to be configured: template name, description, DB engine version, and parameter values. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

Constraints

- This API is only available for cluster TaurusDB instances (dedicated edition).
- The name of the custom parameter template is case-sensitive and must be different from the name of an existing or a default parameter template.
- The value of **parameter_values** in the custom parameter template must be within the default value range of the specified database version.

URI

POST /v3/{project_id}/configurations

Table 4-391 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .

Request Parameters

Table 4-392 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Table 4-393 Request body parameters

Parameter	Mandatory	Type	Description
name	Yes	String	Parameter template name. The template name can contain 1 to 64 characters. Only letters (case-sensitive), digits, hyphens (-), underscores (_), and periods (.) are allowed.
description	No	String	Parameter template description. The value is left blank by default. The description can consist of a maximum of 256 characters and cannot contain the carriage return character or the following special characters: !<"='>&
parameter_values	No	Map<String,String>	Mapping between parameter names and parameter values. You can specify parameter values based on a default parameter template.
datastore	No	DatastoreResult object	Database object.

Table 4-394 DatastoreResult

Parameter	Mandatory	Type	Description
type	Yes	String	DB engine. Currently, only gaussdb-mysql is supported.
version	Yes	String	DB version. For details about supported DB versions, see Querying Version Information About a DB Engine .

Response Parameters

Status code: 200

Table 4-395 Response body parameters

Parameter	Type	Description
configurations	ConfigurationSummary2 object	Parameter template information.

Table 4-396 ConfigurationSummary2

Parameter	Type	Description
id	String	Parameter template ID.
name	String	Parameter template name.
description	String	Parameter template description.
datastore	DatastoreResult object	Database object.
created	String	Creation time in the "yyyy-MM-ddTHH:mm:ssZ" format. T is the separator between calendar and hourly notation of time. Z indicates the time zone offset.
updated	String	Update time in the "yyyy-MM-ddTHH:mm:ssZ" format. T is the separator between calendar and hourly notation of time. Z indicates the time zone offset.

Table 4-397 DatastoreResult

Parameter	Type	Description
type	String	DB engine. Currently, only gaussdb-mysql is supported.
version	String	DB version. For details about supported DB versions, see Querying Version Information About a DB Engine .

Status code: 400

Table 4-398 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-399 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Creating a parameter template (There are up to 10 concurrent connections for the account.)

```
POST https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/configurations
{
  "name": "myparameter",
  "description": "parameter1",
  "datastore": {
    "type": "gaussdb-mysql",
    "version": "8.0"
  },
  "parameter_values": {
    "max_user_connections": "10"
  }
}
```

Example Response

Status code: 200

Success.

```
{
  "configurations" : {
    "id" : "887ea0d1bb0843c49e8d8e5a09a95652pr07",
    "name" : "myparameter",
    "description" : "parameter1",
    "datastore" : {
      "type" : "gaussdb-mysql",
      "version" : "8.0"
    },
    "created" : "2022-05-15T11:53:34+0000",
    "updated" : "2022-05-15T11:53:34+0000"
  }
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.5.3 Deleting a Parameter Template

Function

This API is used to delete a specified parameter template. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

Constraints

- This API is only available for TaurusDB.
- Default parameter templates cannot be deleted.

URI

DELETE /v3/{project_id}/configurations/{configuration_id}

Table 4-400 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
configuration_id	Yes	String	Parameter template ID.

Request Parameters

Table 4-401 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Response Parameters

Status code: 200

Table 4-402 Response body parameters

Parameter	Type	Description
configuration_id	String	Parameter template ID.
configuration_name	String	Parameter template name.

Status code: 400

Table 4-403 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-404 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Deleting a parameter template

```
DELETE https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/configurations/  
43570e0de32e40c5a15f831aa5ce4176pr07
```

Example Response

Status code: 200

Success.

```
{  
  "configuration_id" : "887ea0d1bb0843c49e8d8e5a09a95652pr07",  
  "configuration_name" : "myparameter"  
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.5.4 Obtaining Details About a Parameter Template

Function

This API is used to obtain parameter details of a specified parameter template. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

Constraints

This API is only available for cluster TaurusDB instances (dedicated edition).

URI

```
GET /v3/{project_id}/configurations/{configuration_id}
```

Table 4-405 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
configuration_id	Yes	String	Parameter template ID. To obtain this value, see Querying Parameter Templates .

Request Parameters

Table 4-406 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Response Parameters

Status code: 200

Table 4-407 Response body parameters

Parameter	Type	Description
configurations	ConfigurationSummary2 object	Parameter template information.

Parameter	Type	Description
parameter_values	Map<String,String>	Mapping between parameter names and parameter values. You can specify parameter values based on a default parameter template.

Table 4-408 ConfigurationSummary2

Parameter	Type	Description
id	String	Parameter template ID.
name	String	Parameter template name.
description	String	Parameter template description.
datastore	DatastoreResult object	Database object.
created	String	Creation time in the "yyyy-MM-ddTHH:mm:ssZ" format. T is the separator between calendar and hourly notation of time. Z indicates the time zone offset.
updated	String	Update time in the "yyyy-MM-ddTHH:mm:ssZ" format. T is the separator between calendar and hourly notation of time. Z indicates the time zone offset.

Table 4-409 DatastoreResult

Parameter	Type	Description
type	String	DB engine. Currently, only gaussdb-mysql is supported.
version	String	DB version. To obtain details about supported DB engine versions, call the API for querying the DB engine versions .

Status code: 400

Table 4-410 Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error message.

Status code: 500

Table 4-411 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Obtaining details about a parameter template

```
GET https://{endpoint}/v3/0549b4a43100d4f32f51c01c2fe4acdb/configurations/7a8d539ba30f43adaf1b16d08b1df4bdpr07
```

Example Response

Status code: 200

Success.

```
{
  "configurations" : {
    "id" : "887ea0d1bb0843c49e8d8e5a09a95652pr07",
    "name" : "myparameter",
    "description" : "parameter1",
    "datastore" : {
      "type" : "gaussdb-mysql",
      "version" : "8.0"
    },
    "created" : "2022-05-15T11:53:34+0000",
    "updated" : "2022-05-15T11:53:34+0000"
  },
  "parameter_values" : {
    "binlog_rows_query_log_events" : "OFF",
    "mount_vip_when_failover" : "ON",
    "log-bin" : "ON",
    "gtid_mode" : "ON",
    "enforce_gtid_consistency" : "ON",
    "innodb_online_alter_log_max_size" : "134217728",
    "binlog_gtid_simple_recovery" : "ON",
    "max_user_connections" : "10"
  }
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.5.5 Modifying Parameters in a Parameter Template

Function

This API is used to modify parameters in a specified parameter template, including parameter names, descriptions, and values. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

Constraints

- This API is only available for cluster TaurusDB instances (dedicated edition).
- Default parameter templates cannot be modified.
- The name of the modified parameter template must be different from that of a default parameter template.
- The parameter values to be modified must be within the default value range of the specified database version.

URI

PUT /v3/{project_id}/configurations/{configuration_id}

Table 4-412 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
configuration_id	Yes	String	Parameter template ID. To obtain this value, see Querying Parameter Templates .

Request Parameters

Table 4-413 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Table 4-414 Request body parameters

Parameter	Mandatory	Type	Description
name	No	String	Parameter template name. The template name can contain 1 to 64 characters. Only letters (case-sensitive), digits, hyphens (-), underscores (_), and periods (.) are allowed. The parameter template description, parameter name, and parameter value mapping cannot be empty at the same time.
description	No	String	Parameter template description. The value is left blank by default. The description can consist of a maximum of 256 characters and cannot contain the carriage return character or the following special characters: !<"='>&

Parameter	Mandatory	Type	Description
parameter_values	No	Map<String,String>	Mapping between parameter names and parameter values. You can specify parameter values based on a default parameter template. If this parameter is not specified, the original parameter information is retained.

Response Parameters

Status code: 200

Table 4-415 Response body parameters

Parameter	Type	Description
job_id	String	Task ID for modifying the parameter template.

Status code: 400

Table 4-416 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-417 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Modifying parameters in a parameter template

```
PUT https://{endpoint}/v3/0549b4a43100d4f32f51c01c2fe4acdb/configurations/7a8d539ba30f43adaf1b16d08b1df4bdpr07
```



```
{
  "parameter_values": {
    "max_user_connections": "4"
  }
}
```

Example Response

Status code: 200

Success.

```
{
  "job_id": "f6cb21fe-186a-4931-b20d-764ced1f1f6b"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.5.6 Applying a Parameter Template

Function

This API is used to apply a parameter template to a specified DB instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

PUT /v3/{project_id}/configurations/{configuration_id}/apply

Table 4-418 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
configuration_id	Yes	String	Parameter template ID. To obtain this value, see Querying Parameter Templates .

Request Parameters

Table 4-419 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Table 4-420 Request body parameter

Parameter	Mandatory	Type	Description
instance_ids	Yes	Array of strings	Instance IDs. Up to 10 instance IDs can be returned.

Response Parameters

Status code: 200

Table 4-421 Response body parameters

Parameter	Type	Description
job_id	String	Task ID for applying a parameter template.

Status code: 400

Table 4-422 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-423 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Applying a parameter template

```
PUT https://{endpoint}/v3/0549b4a43100d4f32f51c01c2fe4acdb/configurations/  
7a8d539ba30f43adaf1b16d08b1df4bdpr07/apply  
{  
  "instance_ids" : "1c3f12d626824d4ca357104def25a455in07"  
}
```

Example Response

Status code: 200

Success.

```
{  
  "job_id" : "bf26cf3c-d046-4080-bb45-f114be7afa5f"  
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.5.7 Replicating a Parameter Template

Function

This API is used to replicate a parameter template. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

POST /v3/{project_id}/configurations/{configuration_id}/copy

Table 4-424 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
configuration_id	Yes	String	Parameter template ID. To obtain this value, see Querying Parameter Templates . After the request is processed, the value of id in the response body is the value of configuration_id .

Request Parameters

Table 4-425 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Table 4-426 Request body parameter

Parameter	Mandatory	Type	Description
name	Yes	String	Name of the replicated parameter template. The template name can contain 1 to 64 characters. Only letters (case-sensitive), digits, hyphens (-), underscores (_), and periods (.) are allowed.
description	No	String	Description of the replicated parameter template. The value is left blank by default. The description must consist of a maximum of 256 characters and cannot contain the carriage return character or the following special characters: >!"&'=

Response Parameters

Status code: 200

Table 4-427 Response body parameters

Parameter	Type	Description
configuration_id	String	Parameter template ID.

Status code: 400

Table 4-428 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-429 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Replicating a parameter template

```
POST https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/configurations/a2069d40256f40078c52d90d6a91ee63pr07/copy
```

```
{  
  "name" : "paramTemplate-new",  
  "description" : "new-parameter-group"  
}
```

Example Response

Status code: 200

Success.

```
{  
  "configuration_id" : "7b4e07852bd54016906e89461b3182cdpr02"  
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.5.8 Comparing Parameter Templates

Function

This API is used to compare two parameter templates. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

```
POST /v3/{project_id}/configurations/comparison
```

Table 4-430 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .

Request Parameters

Table 4-431 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Table 4-432 Request body parameter

Parameter	Mandatory	Type	Description
source_configuration_id	Yes	String	ID of the source parameter template for comparison. To obtain this value, see Querying Parameter Templates . After the request is processed, the value of id in the response body is the value of source_configuration_id .

Parameter	Mandatory	Type	Description
target_configuration_id	Yes	String	<p>ID of the destination parameter template for comparison</p> <p>To obtain this value, see Querying Parameter Templates.</p> <p>After the request is processed, the value of id in the response body is the value of target_configuration_id.</p>

Response Parameters

Status code: 200

Table 4-433 Response body parameters

Parameter	Type	Description
differences	Array of ParamGroupParameterDifferences objects	Differences between parameters.

Table 4-434 ParamGroupParameterDifferences

Parameter	Type	Description
parameter_name	String	Parameter name.
source_value	String	Parameter value in the source parameter template.
target_value	String	Parameter value in the destination parameter template.

Status code: 400

Table 4-435 Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error message.

Status code: 500

Table 4-436 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Comparing parameter templates

```
POST https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/configurations/comparison
{
  "source_configuration_id" : "a2069d40256f40078c52d90d6a91ee63pr07",
  "target_configuration_id" : "0cd8ef851dc4422f98e7717205ed13e6pr07"
}
```

Example Response

Status code: 200

Success.

```
{
  "differences" : [ {
    "parameter_name" : "innodb_purge_threads",
    "source_value" : 1,
    "target_value" : 4
  }, {
    "parameter_name" : "connect_timeout",
    "source_value" : 10,
    "target_value" : 20
  } ]
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.5.9 Querying Instances That a Parameter Template Can Be Applied To

Function

This API is used to query DB instances that a parameter template can be applied to. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/configurations/{configuration_id}/applicable-instances

Table 4-437 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
configuration_id	Yes	String	Parameter template ID. To obtain this value, see Querying Parameter Templates . After the request is processed, the value of id in the response body is the value of configuration_id .

Table 4-438 Query parameters

Parameter	Mandatory	Type	Description
offset	No	Integer	Index offset. If offset is set to <i>N</i> , the resource query starts from the <i>N</i> +1 piece of data. The value is 0 by default, indicating that the query starts from the first piece of data. The value cannot be a negative number.

Parameter	Mandatory	Type	Description
limit	No	Integer	Number of records to be queried. The default value is 100 . The value must be a positive integer. The minimum value is 1 and the maximum value is 100 .

Request Parameters

Table 4-439 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Response Parameters

Status code: 200

Table 4-440 Response body parameters

Parameter	Type	Description
instances	Array of ApplicableInstances objects	List of instances that the parameter template can be applied to.
total_count	Integer	Number of instances that the parameter template can be applied to.

Table 4-441 ApplicableInstances

Parameter	Type	Description
instance_id	String	Instance ID.
instance_name	String	Instance name.

Status code: 400

Table 4-442 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-443 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying instances that a template parameter template can be applied to

```
GET https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/configurations/0c82974e2354466098d7b4b72e55129dpr07/applicable-instances
```

Example Response

Status code: 200

Success.

```
{
  "total_count": 10,
  "instances": [ {
    "instance_id": "75e1935142974ca685357dc784626f22in07",
    "instance_name": "gauss-ff14-hll"
  }, {
    "instance_id": "cf72c31a689c40b7883c355a0bb5cc1din07",
    "instance_name": "tst-bbbnew"
  }, {
    "instance_id": "4a99fbae95df43648281cdd9e269c1c7in07",
    "instance_name": "gauss-62d8"
  }
]
```

```
}, {
  "instance_id" : "fb6244dc9b1443b7ad0aae81283d5d28in07",
  "instance_name" : "gauss-test-1"
}, {
  "instance_id" : "2260da7e105e485ebc9c060c1663d89ain07",
  "instance_name" : "gauss-f4c6-cx"
}, {
  "instance_id" : "1cf7357f931448f89229de664c114d05in07",
  "instance_name" : "gauss-wry-0710-3"
}, {
  "instance_id" : "5280b1a667d142378fe28816afb2e4b8in07",
  "instance_name" : "taurus_WAKJSzVy"
}, {
  "instance_id" : "56c6924923804259a1b15b846c6b4bf1in07",
  "instance_name" : "tck-update3"
}, {
  "instance_id" : "72a8f4287e04427985087795825fcddain07",
  "instance_name" : "critBack"
}, {
  "instance_id" : "c5df1dec75ed48ab85fe52c72ba784bbin07",
  "instance_name" : "gauss-f873-cx"
}
}]
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.5.10 Viewing Parameter Change History

Function

This API is used to view the parameter change history. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/configurations/{configuration_id}/modify-history

Table 4-444 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .

Parameter	Mandatory	Type	Description
configuration_id	Yes	String	Parameter template ID. To obtain this value, see Querying Details of a DB Instance . After the request is processed, the value of configuration_id in the response body is the value of configuration_id .

Table 4-445 Query parameters

Parameter	Mandatory	Type	Description
offset	No	Integer	Index offset. If offset is set to <i>N</i> , the resource query starts from the <i>N</i> +1 piece of data. The value is 0 by default, indicating that the query starts from the first piece of data. The value cannot be a negative number.
limit	No	Integer	Number of records to be queried. The default value is 100 . The value must be a positive integer. The minimum value is 1 and the maximum value is 100 .

Request Parameters

Table 4-446 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.

Parameter	Mandatory	Type	Description
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Response Parameters

Status code: 200

Table 4-447 Response body parameters

Parameter	Type	Description
total_count	Integer	Total number of records.
histories	Array of ParamGroupHistoryResponse objects	Change history of the parameter template.

Table 4-448 ParamGroupHistoryResponse

Parameter	Type	Description
parameter_name	String	Parameter name.
old_value	String	Old parameter value.
new_value	String	New parameter value.
update_result	String	Update result.
is_applied	Boolean	Whether the changed template is applied. <ul style="list-style-type: none"> • true: applied. • false: not applied
updated	String	Time when the template was modified. The format is yyyy-mm-ddThh:mm:ssZ. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, if the time zone offset is one hour, the value of Z is +0100 .

Parameter	Type	Description
applied	String	Time when the template was applied. The format is yyyy-mm-ddThh:mm:ssZ. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, if the time zone offset is one hour, the value of Z is +0100 .

Status code: 400

Table 4-449 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-450 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Viewing parameter change history

```
GET https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/configurations/7625c6a12d884be1891c61d921e0e114pr07/modify-history
```

Example Response

Status code: 200

Success.

```
{
  "total_count": 2,
  "histories": [ {
    "parameter_name": "binlog_rows_query_log_events",
    "old_value": false,
    "new_value": true,
    "update_result": "SUCCESS",
    "is_applied": true,
    "updated": "2023-07-10T02:14:28+0000",
    "applied": "2023-07-10T02:14:28+0000"
  }
  ]
}
```



```
}, {  
  "parameter_name": "block_encryption_mode",  
  "old_value": "aes-256-cbc",  
  "new_value": "aes-128-cfb1",  
  "update_result": "SUCCESS",  
  "is_applied": true,  
  "updated": "2023-07-10T02:14:28+0000",  
  "applied": "2023-07-10T02:14:28+0000"  
}]  
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.5.11 Obtaining Parameter Information of a Specified DB Instance

Function

This API is used to obtain parameter information of a specified DB instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/instances/{instance_id}/configurations

Table 4-451 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Explanation: Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID . Constraints: None Value range: The value can contain 32 characters. Only letters and digits are allowed. Default value: None

Parameter	Mandatory	Type	Description
instance_id	Yes	String	<p>Explanation: Instance ID, which uniquely identifies an instance.</p> <p>Constraints: None</p> <p>Value range: The value can contain 36 characters with a suffix of in07. Only letters and digits are allowed.</p> <p>Default value: None</p>

Table 4-452 Query parameters

Parameter	Mandatory	Type	Description
offset	No	Integer	<p>Explanation: Index offset. The query starts from the next piece of data indexed by this parameter.</p> <p>Constraints: The value must be an integer and cannot be a negative number.</p> <p>Value range: ≥0</p> <p>Default value: 0</p>
limit	No	Integer	<p>Explanation: Number of records to be queried.</p> <p>Constraints: The value must be an integer and cannot be a negative number.</p> <p>Value range: 1-100</p> <p>Default value: 100</p>

Request Parameters

Table 4-453 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	<p>Explanation: User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the token value.</p> <p>Constraints: None</p> <p>Value range: None</p> <p>Default value: None</p>
X-Language	No	String	<p>Explanation: Request language type.</p> <p>Constraints: None</p> <p>Value range:</p> <ul style="list-style-type: none"> en-us zh-cn <p>Default value: en-us</p>

Response Parameters

Status code: 200

Table 4-454 Response body parameters

Parameter	Type	Description
configurations	ParameterConfigurationInfo object	<p>Explanation: Instance parameter template information.</p>

Parameter	Type	Description
total_count	Long	Explanation: Total number of instance parameters. Value range: ≥0
parameter_values	Array of ParameterValuesInfo objects	Explanation: Instance parameter information.

Table 4-455 ParameterConfigurationInfo

Parameter	Type	Description
datastore_version_name	String	Explanation: DB version name. Value range: 2.0
datastore_name	String	Explanation: DB engine name in the parameter template. Value range: taurus
created	String	Explanation: Time when the parameter template was created. The format is "yyyy-mm-ddThh:mm:ssZ". T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, if the time zone offset is one hour, the value of Z is +0100 . Value range: None
updated	String	Explanation: Time when the parameter template was updated. The format is "yyyy-mm-ddThh:mm:ssZ". T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, if the time zone offset is one hour, the value of Z is +0100 . Value range: None

Table 4-456 ParameterValuesInfo

Parameter	Type	Description
name	String	Explanation: Parameter name. Value range: None
value	String	Explanation: Parameter value. Value range: None
restart_required	Boolean	Explanation: Whether a reboot is required. Value range: <ul style="list-style-type: none"> ● false: No ● true: Yes
readonly	Boolean	Explanation: Whether the parameter is read-only. Value range: <ul style="list-style-type: none"> ● false: No ● true: Yes
value_range	String	Explanation: Value range. Value range: None
type	String	Explanation: Parameter type. Value range: <ul style="list-style-type: none"> ● string ● integer ● boolean ● list ● float
description	String	Explanation: Parameter description. Value range: None

Status code: 400

Table 4-457 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-458 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Obtaining parameter information of a specified DB instance

```
GET https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/61a4ea66210545909d74a05c27a7179ein07/configurations
```

Example Response

Status code: 200

Success.

```
{
  "configurations" : {
    "datastore_version_name" : 2.0,
    "datastore_name" : "taurus",
    "created" : "2022-10-29T09:38:36+0000",
    "updated" : "2022-10-29T09:38:36+0000"
  },
  "total_count" : 125,
  "parameter_values" : [ {
    "name" : "auto_increment_increment",
    "value" : 1,
    "restart_required" : false,
    "readonly" : false,
    "value_range" : "1-65535",
    "type" : "integer",
    ..."description": auto_increment_increment and auto_increment_offset are used for master-to-master replication and to control the operations of the AUTO_INCREMENT column.
  }, {
    "name" : "auto_increment_offset",
    "value" : 1,
    "restart_required" : false,
    "readonly" : false,
```

```

"value_range" : "1-65535",
"type" : "integer",
...."description": auto_increment_increment and auto_increment_offset are used for master-to-master
replication and to control the operations of the AUTO_INCREMENT column.
} ]
}

```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.5.12 Modifying Parameters of a Specified DB Instance

Function

This API is used to modify parameters of a specified DB instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

PUT /v3/{project_id}/instances/{instance_id}/configurations

Table 4-459 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-460 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
Content-Type	Yes	String	Content type. Value: application/json
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Table 4-461 Request body parameters

Parameter	Mandatory	Type	Description
parameter_values	Yes	Map<String,String>	Mapping between parameter names and parameter values. You can specify parameter values based on a default parameter template. If this parameter is not specified, the original parameter information is retained.

Response Parameters

Status code: 200

Table 4-462 Response body parameters

Parameter	Type	Description
job_id	String	Task ID for modifying the parameters of a specified DB instance.

Parameter	Type	Description
restart_required	Boolean	Whether the instance needs to be rebooted. <ul style="list-style-type: none"> • true: The instance needs to be rebooted. • false: The instance does not need to be rebooted.

Status code: 400

Table 4-463 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-464 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Modifying parameters of a specified DB instance

```
PUT https://{endpoint}/v3/97b026aa9cc4417888c14c84a1ad9860/instances/3ef58db3986540d19f95151309368d34in07/configurations
```

```
{
  "parameter_values": {
    "max_user_connections": "100"
  }
}
```

Example Response

Status code: 200

Success.

```
{
  "job_id": "e5d698a9-d8db-47d2-bf75-3c9018f72b6f",
  "restart_required": false
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.5.13 Replicating the Parameter Template of a DB Instance

Function

This API is used to replicate the parameter template of a DB instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

POST /v3/{project_id}/instances/{instance_id}/configurations/{configuration_id}/copy

Table 4-465 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.
configuration_id	Yes	String	Parameter template ID. To obtain the value, call the API for querying details of a DB instance . After the request is processed, this parameter value is the value of configuration_id in the response body

Request Parameters

Table 4-466 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
Content-Type	Yes	String	Content type. Value: application/json
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Table 4-467 Request body parameters

Parameter	Mandatory	Type	Description
name	Yes	String	Name of the replicated parameter template. The template name can contain 1 to 64 characters. Only letters (case-sensitive), digits, hyphens (-), underscores (_), and periods (.) are allowed.
description	No	String	Description of the replicated parameter template. The value is left blank by default. The description can consist of up to 256 characters, and cannot contain the carriage return characters or the following special characters: ! <"='>&

Response Parameters

Status code: 200

Table 4-468 Response body parameters

Parameter	Type	Description
configuration_id	String	Parameter template ID.

Status code: 400**Table 4-469** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500**Table 4-470** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Replicating the parameter template of a DB instance

```
POST https://{endpoint}/v3/97b026aa9cc4417888c14c84a1ad9860/instances/61a4ea66210545909d74a05c27a7179ein07/configurations/b26ab68e7a77495c8d84b92e4eaa33d3pr07/copy
{
  "name" : "paramTemplate-test-1",
  "description" : "test"
}
```

Example Response

Status code: 200

Success.

```
{
  "configuration_id" : "c82d8c54c4c7416a946f58d9ee89ed8epr07"
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.5.14 Querying Application Records of a Parameter Template

Function

This API is used to query application records of a parameter template. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/configurations/{config_id}/apply-history

Table 4-471 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
config_id	Yes	String	Parameter template ID.

Table 4-472 Query parameters

Parameter	Mandatory	Type	Description
limit	No	Integer	Number of records to be queried. The default value is 10 . The value must be a positive integer. The minimum value is 1 and the maximum value is 100 .

Parameter	Mandatory	Type	Description
offset	No	Integer	Index offset. If offset is set to <i>N</i> , the query starts from the <i>N</i> +1 piece of data. The value is 0 by default, indicating that the query starts from the first piece of data. The value must be a number but cannot be a negative number.

Request Parameters

Table 4-473 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain the value, call the API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
Content-Type	Yes	String	Content type. Value: application/json

Response Parameters

Status code: 200

Table 4-474 Response body parameters

Parameter	Type	Description
total_count	String	Number of application records.
histories	Array of TemplateApplyHistory objects	Application record information.

Table 4-475 TemplateApplyHistory

Parameter	Type	Description
target_id	String	ID of the instance that the template is applied to.
target_name	String	Name of the instance that the template is applied to.
apply_result	String	Application result.
applied_at	Number	Time when the template was applied.
error_code	String	Error code.

Status code: 400

Table 4-476 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-477 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying application records of a parameter template

```
GET https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/configurations/b366363c95b04b0eac39e73ea2672ffepr07/apply-history
```

Example Response

Status code: 200

Success.

```
{
  "total_count": 1,
  "histories": [ {
```

```
"target_id" : "06789bdfbe414d78b9cef1b79d7d9680in07",  
"target_name" : "gauss-11",  
"apply_result" : "SUCCESS",  
"applied_at" : 1712246191000,  
"error_code" : ""  
} ]  
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.6 Quota Management

4.6.1 Querying the Instance Quotas of a Tenant

Function

This API is used to query the resource quotas of a specified tenant. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/project-quotas

Table 4-478 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Explanation: Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID . Constraints: None Value range: The value can contain 32 characters. Only letters and digits are allowed. Default value: None

Table 4-479 Query parameters

Parameter	Mandatory	Type	Description
type	No	String	Explanation: Resource type used to filter quotas. Constraints: None Value range: instance Default value: instance

Request Parameters

Table 4-480 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	<p>Explanation: User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the token value.</p> <p>Constraints: None</p> <p>Value range: None</p> <p>Default value: None</p>
X-Language	No	String	<p>Explanation: Request language type.</p> <p>Constraints: None</p> <p>Value range:</p> <ul style="list-style-type: none"> en-us zh-cn <p>Default value: en-us</p>

Response Parameters

Status code: 200

Table 4-481 Response body parameters

Parameter	Type	Description
quotas	project-quotas object	<p>Explanation: Instance quota of a tenant.</p>

Table 4-482 project-quotas

Parameter	Type	Description
resources	Array of resource objects	Explanation: Resource objects.

Table 4-483 resource

Parameter	Type	Description
type	String	Explanation: Quota of a specified type. Value range: instance
used	Integer	Explanation: Number of created resources. Value range: ≥ 0
quota	Integer	Explanation: Maximum resource quota. Value range: The instance quantity quota ranges from 0 to 100,000. The value -1 indicates no limit.

Status code: 400

Table 4-484 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-485 Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error message.

Example Request

Querying the instance quotas of a tenant

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/project-quotas?type=instance
```

Example Response

Status code: 200

Success.

```
{
  "quotas": {
    "resources": [ {
      "type": "instance",
      "used": "4",
      "quota": 50
    } ]
  }
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.6.2 Querying the Resource Quotas of a Specified Enterprise Project

Function

This API is used to query the resource quotas of a specified enterprise project. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

Constraints

This API is in the open beta test (OBT) phase. To use this API, submit a service ticket.

URI

```
GET /v3/{project_id}/quotas
```

Table 4-486 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .

Table 4-487 Query parameters

Parameter	Mandatory	Type	Description
offset	No	String	Index offset. If offset is set to <i>N</i> , the resource query starts from the <i>N</i> +1 piece of data. The value is 0 by default, indicating that the query starts from the first piece of data. The value cannot be a negative number. Value range: 0–10000.
limit	No	String	Number of records to be queried. The default value is 10 . The value must be a positive integer. The minimum value is 1 and the maximum value is 100 .
enterprise_project_name	No	String	Enterprise project name.

Request Parameters

Table 4-488 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.

Parameter	Mandatory	Type	Description
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Response Parameters

Status code: 200

Table 4-489 Response body parameters

Parameter	Type	Description
quota_list	Array of quota objects	Resource list objects.
total_count	Integer	Number of quota records.

Table 4-490 quota

Parameter	Type	Description
enterprise_project_id	String	Enterprise project ID.
enterprise_project_name	String	Enterprise project name.
instance_quota	Integer	Instance quantity quota. The value -1 indicates no limit.
vcpus_quota	Integer	vCPU quota. The value -1 indicates no limit.
ram_quota	Integer	Memory quota in GB. The value -1 indicates no limit.
availability_instance_quota	Integer	Remaining instance quota. The value -1 indicates no limit.
availability_vcpus_quota	Integer	Remaining vCPU quota. The value -1 indicates no limit.
availability_ram_quota	Integer	Remaining memory quota. The value -1 indicates no limit.

Status code: 400

Table 4-491 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-492 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying resource quotas

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/quotas
```

Example Response

Status code: 200

Success.

```
{
  "quota_list": [ {
    "enterprise_project_id": "0",
    "enterprise_project_name": "default",
    "instance_quota": 20,
    "vcpus_quota": 20,
    "ram_quota": 40,
    "availability_instance_quota": 1,
    "availability_vcpus_quota": 4,
    "availability_ram_quota": 8
  } ]
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.6.3 Configuring Resource Quotas for a Specified Enterprise Project

Function

This API is used to configure resource quotas for a specified enterprise project. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

Constraints

This API is in the open beta test (OBT) phase. To use this API, submit a service ticket.

URI

POST /v3/{project_id}/quotas

Table 4-493 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .

Request Parameters

Table 4-494 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Table 4-495 Request body parameters

Parameter	Mandatory	Type	Description
quota_list	Yes	Array of setQuota objects	Quota details. Up to 10 quota records can be configured at a time.

Table 4-496 setQuota

Parameter	Mandatory	Type	Description
enterprise_project_id	Yes	String	Enterprise project ID.
instance_quota	No	Integer	Instance quantity quota. Value range: 0 to 100000 . NOTE (If there are already instances created, this parameter value must be greater than the number of existing instances.)
vcpus_quota	No	Integer	vCPU quota. Value range: 0 to 2147483646 . NOTE (If there are already instances created, this parameter value must be greater than the number of used vCPUs.)
ram_quota	No	Integer	Memory quota in GB. Value range: 0 to 2147483646 . NOTE (If there are already instances created, this parameter value must be greater than the used memory size.)

Response Parameters

Status code: 200

Table 4-497 Response body parameters

Parameter	Type	Description
quota_list	Array of setQuota objects	Configured quota information.

Table 4-498 setQuota

Parameter	Type	Description
enterprise_project_id	String	Enterprise project ID.
instance_quota	Integer	Instance quantity quota.
vcpus_quota	Integer	vCPU quota.
ram_quota	Integer	Memory quota in GB.

Example Request

Configuring resource quotas

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/quotas
{
  "quota_list": [ {
    "enterprise_project_id": "0",
    "instance_quota": 20,
    "vcpus_quota": 20,
    "ram_quota": 40
  } ]
}
```

Example Response

Status code: 200

Success.

```
{
  "quota_list": [ {
    "enterprise_project_id": "0",
    "instance_quota": 20,
    "vcpus_quota": 20,
    "ram_quota": 40
  } ]
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.6.4 Modifying the Resource Quotas of a Specified Enterprise Project

Function

This API is used to modify the resource quotas of a specified enterprise project. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

Constraints

This API is in the open beta test (OBT) phase. To use this API, submit a service ticket.

URI

PUT /v3/{project_id}/quotas

Table 4-499 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .

Request Parameters

Table 4-500 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.

Parameter	Mandatory	Type	Description
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Table 4-501 Request body parameters

Parameter	Mandatory	Type	Description
quota_list	Yes	Array of setQuota objects	Enterprise project resource quotas to be updated. A maximum of 10 quotas can be updated at a time.

Table 4-502 setQuota

Parameter	Mandatory	Type	Description
enterprise_project_id	Yes	String	Enterprise project ID.
instance_quota	No	Integer	Instance quantity quota. Value range: 0–100000. NOTE (If there are already instances created, this parameter value must be greater than the number of existing instances.)
vcpus_quota	No	Integer	vCPU quota. Value range: 0–2147483646. NOTE (If there are already instances created, this parameter value must be greater than the number of used vCPUs.)
ram_quota	No	Integer	Memory quota in GB. Value range: 0–2147483646. NOTE (If there are already instances created, this parameter value must be greater than the used memory size.)

Response Parameters

Status code: 200

Table 4-503 Response body parameters

Parameter	Type	Description
quota_list	Array of setQuota objects	Configured quota information.

Table 4-504 setQuota

Parameter	Type	Description
enterprise_project_id	String	Enterprise project ID.
instance_quota	Integer	Instance quantity quota. Value range: 0-100000. NOTE (If there are already instances created, this parameter value must be greater than the number of existing instances.)
vcpu_quota	Integer	vCPU quota. Value range: 0-2147483646. NOTE (If there are already instances created, this parameter value must be greater than the number of used vCPUs.)
ram_quota	Integer	Memory quota in GB. Value range: 0-2147483646. NOTE (If there are already instances created, this parameter value must be greater than the used memory size.)

Status code: 400

Table 4-505 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-506 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Modifying the resource quotas of a specified enterprise project

```
PUT https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/quotas
{
  "quota_list": [ {
    "enterprise_project_id": "0",
    "instance_quota": 20,
    "vcpus_quota": 20,
    "ram_quota": 40
  } ]
}
```

Example Response

Status code: 200

Success.

```
{
  "quota_list": [ {
    "enterprise_project_id": "0",
    "instance_quota": 20,
    "vcpus_quota": 20,
    "ram_quota": 40
  } ]
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.6.5 Querying Enterprise Projects

Function

This API is used to query enterprise projects. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/enterprise-projects

Table 4-507 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .

Table 4-508 Query parameters

Parameter	Mandatory	Type	Description
offset	No	Integer	Index offset. If offset is set to <i>N</i> , the resource query starts from the <i>N</i> +1 piece of data. The value is 0 by default, indicating that the query starts from the first piece of data. The value cannot be a negative number.
limit	No	Integer	Number of records to be queried. The default value is 100 . The value must be a positive integer. The minimum value is 1 and the maximum value is 100 .

Request Parameters

Table 4-509 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Response Parameters

Status code: 200

Table 4-510 Response body parameters

Parameter	Type	Description
enterprise_projects	Array of EnterpriseProjectItem objects	Enterprise project information.
total_count	Integer	Total number of enterprise projects.

Table 4-511 EnterpriseProjectItem

Parameter	Type	Description
id	String	Enterprise project ID.
name	String	Enterprise project name.
description	String	Description.
status	String	Status. <ul style="list-style-type: none"> • 1: normal • 0: abnormal
created	String	Creation time in the "yyyy-mm-ddThh:mm:ssZ" format. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, if the time zone offset is one hour, the value of Z is +0100 .
updated	String	Update time in the "yyyy-mm-ddThh:mm:ssZ" format. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, if the time zone offset is one hour, the value of Z is +0100 .

Status code: 400

Table 4-512 Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error message.

Status code: 500

Table 4-513 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying Enterprise Projects

```
GET https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/enterprise-projects
```

Example Response

Status code: 200

Success.

```
{
  "total_count": 4,
  "enterprise_projects": [ {
    "id": 0,
    "name": "default",
    "description": null,
    "status": 1,
    "created": null,
    "updated": null
  }, {
    "id": "5c7d11e0-3201-4558-bcce-1172137cf7e2",
    "name": "sjw-eps",
    "description": null,
    "status": 1,
    "created": "2023-06-12T02:14:28+0000",
    "updated": "2023-06-12T02:14:28+0000"
  }, {
    "id": "12093327-28dc-46c5-8ba6-d42c9236f9d6",
    "name": "adf",
    "description": null,
    "status": 1,
    "created": "2023-05-06T08:33:03+0000",
    "updated": "2023-05-06T08:33:03+0000"
  }, {
    "id": "07d90b3f-422b-40c9-b9b3-6d00d1d7a60b",
    "name": "eps-test",
    "description": null,
    "status": 1,
    "created": "2023-03-16T01:38:13+0000",
    "updated": "2023-03-16T01:38:13+0000"
  }
  ]
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.7 Database Proxy

4.7.1 Creating a Proxy Instance

Function

This API is used to create a proxy instance in ELB mode. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

POST /v3/{project_id}/instances/{instance_id}/proxy

Table 4-514 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-515 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Table 4-516 Request body parameters

Parameter	Mandatory	Type	Description
flavor_ref	Yes	String	Proxy specification code.
node_num	Yes	Integer	Number of proxy nodes. The value is an integer ranging from 2 to 16.
proxy_name	No	String	Proxy instance name. Instances of the same type can have same names under the same tenant. The name must start with a letter and consist of 4 to 64 characters. Only letters (case-sensitive), digits, hyphens (-), and underscores (_) are allowed.
proxy_mode	No	String	Proxy instance type. The default type is readwrite . <ul style="list-style-type: none"> • readwrite: read and write • readonly: read-only

Parameter	Mandatory	Type	Description
route_mode	No	Integer	Routing policy of the proxy instance. Values: <ul style="list-style-type: none"> • 0 (default value): weighted • 1: load balancing (The primary node does not process read requests.) • 2: load balancing (The primary node processes read requests.)
nodes_read_weight	No	Array of NodesWeight objects	Read weights of database nodes. If proxy_mode is set to readonly , you can only assign weights for read replicas.
subnet_id	No	String	Subnet ID in the VPC of the database.
new_node_auto_add_status	No	String	Whether new nodes are automatically associated with proxy instances. To configure this parameter, contact customer service. Values: <ul style="list-style-type: none"> • ON: New nodes are automatically associated with proxy instances. • OFF: New nodes are not automatically associated with proxy instances.
new_node_weight	No	Integer	Read weight of the new node. <ul style="list-style-type: none"> • If route_mode is 0 and new_node_auto_add_status is ON, the value of this parameter ranges from 0 to 1000. • If route_mode is not 0 and new_node_auto_add_status is OFF, this parameter is unavailable.

Table 4-517 NodesWeight

Parameter	Mandatory	Type	Description
id	No	String	Node ID.
weight	No	Integer	Weight assigned to the node. <ul style="list-style-type: none"> • If route_mode is 0, the value is 0 to 1000. • If route_mode is 1, the value for the primary node is 0 and the value for read replicas is 0 or 1. • If route_mode is 2, the value for the primary node is 1 and the value for read replicas is 0 or 1.

Response Parameters

Status code: 201

Table 4-518 Response body parameters

Parameter	Type	Description
job_id	String	Task ID.

Status code: 400

Table 4-519 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-520 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Creating a proxy instance (The proxy instance specifications are 2 vCPUs and 8 GB memory, and the proxy mode is read-only)

```
POST https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/43e4feaab48f11e89039fa163ebaa7e4br01/proxy
{
  "flavor_ref" : "gaussdb.proxy.large.x86.2",
  "node_num" : 2,
  "proxy_name" : "gaussdb-proxy",
  "proxy_mode" : "readonly",
  "route_mode" : 0,
  "nodes_read_weight" : [ {
    "id" : "45021bf73a244312a3f2af95092feecno07",
    "weight" : 50
  }, {
    "id" : "d78a65690cea4af5ad14585e110ff89bno07",
    "weight" : 400
  } ],
  "subnet_id" : "6991d82d-9166-4aff-a1fa-d2a8748b7084"
}
```

Example Response

Status code: 201

Success.

```
{
  "job_id" : "04efe8e2-9255-44ae-a98b-d87cae411890"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.7.2 Deleting a Proxy Instance

Function

This API is used to delete a proxy instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

DELETE /v3/{project_id}/instances/{instance_id}/proxy

Table 4-521 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-522 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Table 4-523 Request body parameters

Parameter	Mandatory	Type	Description
proxy_ids	No	Array of strings	Proxy instance IDs. If only one proxy instance is created, this parameter is not required. If multiple proxy instances are created, this parameter must be specified.

Response Parameters

Status code: 200

Table 4-524 Response body parameters

Parameter	Type	Description
job_id	String	Task ID.

Status code: 400**Table 4-525** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500**Table 4-526** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Deleting a specified proxy instance

```
DELETE https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/096c0fc43e804757b59946b80dc27f8bin07/proxy
{
  "proxy_ids" : [ "151c14381ac14ecfb9703a745b992677po01" ]
}
```

Example Response

Status code: 200

Success.

```
{
  "job_id" : "04efe8e2-9255-44ae-a98b-d87cae411890"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.7.3 Querying Proxy Instances

Function

This API is used to query proxy instances. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/instances/{instance_id}/proxies

Table 4-527 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Explanation: Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID . Constraints: None Value range: The value can contain 32 characters. Only letters and digits are allowed. Default value: None
instance_id	Yes	String	Explanation: Instance ID, which uniquely identifies an instance. Constraints: None Value range: The value can contain 36 characters with a suffix of in07 . Only letters and digits are allowed. Default value: None

Table 4-528 Query parameters

Parameter	Mandatory	Type	Description
offset	No	Integer	<p>Explanation: Index offset. The query starts from the next piece of data indexed by this parameter.</p> <p>Constraints: The value must be an integer and cannot be a negative number.</p> <p>Value range: ≥0</p> <p>Default value: 0</p>
limit	No	Integer	<p>Explanation: Number of records to be queried.</p> <p>Constraints: The value must be an integer and cannot be a negative number.</p> <p>Value range: 1-100</p> <p>Default value: 100</p>

Request Parameters

Table 4-529 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	<p>Explanation: User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the token value.</p> <p>Constraints: None</p> <p>Value range: None</p> <p>Default value: None</p>
X-Language	No	String	<p>Explanation: Request language type.</p> <p>Constraints: None</p> <p>Value range:</p> <ul style="list-style-type: none"> en-us zh-cn <p>Default value: en-us</p>

Response Parameters

Status code: 200

Table 4-530 Response body parameters

Parameter	Type	Description
proxy_list	Array of MySQLShowProxyResponse V3 objects	<p>Explanation: Proxy instances.</p>

Table 4-531 MysqlShowProxyResponseV3

Parameter	Type	Description
proxy	MysqlProxyV3 object	Explanation: Proxy instance information.
master_node	MysqlProxyNodeV3 object	Explanation: Primary node information.
readonly_nodes	Array of MysqlProxyNodeV3 objects	Explanation: Read replica information.

Table 4-532 MysqlProxyV3

Parameter	Type	Description
pool_id	String	Explanation: Proxy instance ID. Value range: The value can contain 36 characters with a suffix of po01 . Only letters and digits are allowed.

Parameter	Type	Description
status	String	<p>Explanation: Status of a proxy instance.</p> <p>Value range:</p> <ul style="list-style-type: none"> ● ACTIVE: The proxy instance is normal. ● FAILED: The proxy instance failed to be created. ● DELETED: The proxy instance is deleted. ● ABNORMAL: The proxy instance is abnormal. ● ENABLING PROXY: The proxy instance is being created. ● DISABLING PROXY: The proxy instance is being deleted. ● ADDING PROXY NODE: Nodes are being added to the proxy instance. ● DELETING READ REPLICAS FROM PROXY: Read replicas are being removed from the proxy instance. ● ADDING READ REPLICAS TO PROXY: Read replicas are being added to the proxy instance. ● CHANGING WEIGHTS: The weights of read replicas for the proxy instance are being changed.
address	String	<p>Explanation: Proxy IP address.</p> <p>Value range: None</p>
port	Integer	<p>Explanation: Port of a proxy instance.</p> <p>Value range: None</p>
pool_status	String	<p>Explanation: Status of a proxy instance.</p> <p>Value range:</p> <ul style="list-style-type: none"> ● ACTIVE: The proxy instance is normal. ● ABNORMAL: The proxy instance is abnormal. ● FAILED: The proxy instance failed to be created. ● DELETED: The proxy instance is deleted.

Parameter	Type	Description
delay_threshold_in_seconds	Integer	Explanation: Delay threshold in seconds. Value range: None
elb_vip	String	Explanation: Virtual IP address in ELB mode. Value range: None
eip	String	Explanation: EIP. Value range: None
vcpus	String	Explanation: vCPUs of a proxy instance. Value range: None
ram	String	Explanation: Memory size of a proxy instance. Value range: None
node_num	Integer	Explanation: Number of proxy instance nodes. Value range: None
mode	String	Explanation: Proxy instance mode. Value range: Cluster
nodes	Array of MysqlProxyNodes objects	Explanation: Database proxy nodes.
flavor_ref	String	Explanation: Proxy instance specifications. Value range: None

Parameter	Type	Description
name	String	<p>Explanation: Proxy instance name.</p> <p>Value range: None</p>
transaction_split	String	<p>Explanation: Status of transaction splitting for the proxy instance.</p> <p>Value range:</p> <ul style="list-style-type: none"> ● true: enabled ● false: disabled
connection_pool_type	String	<p>Explanation: Connection pool type.</p> <p>Value range:</p> <ul style="list-style-type: none"> ● CLOSED: The connection pool is closed. ● SESSION: The session-level connection pool is enabled.
switch_connection_pool_type_enabled	Boolean	<p>Explanation: Whether the proxy instance version supports session-level connection pool.</p> <p>Value range:</p> <ul style="list-style-type: none"> ● true: supported ● false: not supported
route_mode	Integer	<p>Explanation: Routing policy of the proxy instance.</p> <p>Value range:</p> <ul style="list-style-type: none"> ● 0: weighted ● 1: load balancing (The primary node does not process read requests.) ● 2: load balancing (The primary node processes read requests.)
balance_route_mode_enabled	Boolean	<p>Explanation: Whether the proxy instance version supports load balancing.</p> <p>Value range:</p> <ul style="list-style-type: none"> ● true: supported ● false: not supported

Parameter	Type	Description
consistence_mode	String	<p>Explanation: Consistency level. The parameter is left blank by default.</p> <p>Value range:</p> <ul style="list-style-type: none"> ● session: session consistency (Only this value can be used when session_consistence is true.) ● global: global consistency (This value can be used when session_consistence is false.) ● eventual: eventual consistency (This value can be used when session_consistence is false.)
subnet_id	String	<p>Explanation: ID of the subnet that the proxy instance belongs to.</p> <p>Value range: None</p>
ssl_option	String	<p>Explanation: Whether to enable SSL.</p> <p>Value range:</p> <ul style="list-style-type: none"> ● true: SSL is enabled. ● false: SSL is disabled.
new_node_auto_add_status	String	<p>Explanation: Whether new nodes are automatically associated with proxy instances.</p> <p>Value range:</p> <ul style="list-style-type: none"> ● ON: New nodes are automatically associated with proxy instances. ● OFF: New nodes are not automatically associated with proxy instances.
new_node_weight	Integer	<p>Explanation: Read weight of a new node.</p> <p>Value range: 1-1000</p>

Table 4-533 MysqlProxyNodes

Parameter	Type	Description
id	String	Explanation: Proxy node ID.
status	String	Explanation: Status of the proxy instance node. Value range: <ul style="list-style-type: none">● ACTIVE: The node is normal.● ABNORMAL: The node is abnormal.● FAILED: The node fails.● DELETED: The node has been deleted.
name	String	Explanation: Name of the proxy instance node. Value range: None
role	String	Explanation: Role of the proxy instance node. Value range: <ul style="list-style-type: none">● master: primary node● slave: read replica
az_code	String	Description AZ. Value range: None
frozen_flag	Integer	Explanation: Whether the proxy instance node is frozen. Value range: <ul style="list-style-type: none">● 0: unfrozen● 1: frozen● 2: deleted after being frozen

Table 4-534 MysqlProxyNodeV3

Parameter	Type	Description
id	String	<p>Explanation: ID of the proxy instance node.</p> <p>Value range: The value can contain 36 characters with a suffix of no07. Only letters and digits are allowed.</p>
instance_id	String	<p>Explanation: Instance ID, which uniquely identifies an instance.</p> <p>Value range: The value can contain 36 characters with a suffix of in07. Only letters and digits are allowed.</p>
status	String	<p>Explanation: Node status.</p> <p>Value range:</p> <ul style="list-style-type: none"> ● ACTIVE: The node is normal. ● ABNORMAL: The node is abnormal. ● FAILED: The node fails. ● DELETED: The node has been deleted.
name	String	<p>Explanation: Node name.</p> <p>Value range: None</p>
weight	Integer	<p>Explanation: Read weight of the node.</p> <p>Value range: 1–1000</p>
availability_zone	Array of MysqlProxyAvailable objects	<p>Explanation: AZ information.</p>

Table 4-535 MysqlProxyAvailable

Parameter	Type	Description
code	String	Explanation: AZ code. Value range: None
description	String	Explanation: AZ description. Value range: None

Status code: 400

Table 4-536 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-537 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying proxy instances

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/096c0fc43e804757b59946b80dc27f8bin07/proxies?offset=0&limit=10
```

Example Response

Status code: 200

Success.

```
{
  "proxy_list" : [ {
```

```
"proxy" : {
  "pool_id" : "2e7cf21d14794bafab623a334efd9ad8po01",
  "status" : "ACTIVE",
  "address" : "192.168.125.69",
  "port" : 3306,
  "pool_status" : "ACTIVE",
  "delay_threshold_in_seconds" : 30,
  "elb_vip" : "192.168.125.60",
  "eip" : "192.168.125.50",
  "vcpus" : 4,
  "ram" : 8,
  "node_num" : 2,
  "mode" : "Cluster",
  "nodes" : [ {
    "id" : "db53a238a02240c49365e72e284a4890pn01",
    "name" : "PROXY-2e7cf21d14794bafab623a334efd9ad8po01_0",
    "role" : "master",
    "az_code" : "az1xahz",
    "status" : "ACTIVE",
    "frozen_flag" : 0
  } ],
  "name" : "proxy-name",

  "connection_pool_type" : "SESSION",
  "switch_connection_pool_type_enabled" : true ,
  "subnet_id" : "6991d82d-9166-4aff-a1fa-d2a8748b7084"
},
"master_node" : {
  "id" : "c01a5645eb2c4fb6a9373542f5366e50no07",
  "instance_id" : "7a871d6d494e4327ad2e326afb591108in07",
  "status" : "ACTIVE",
  "name" : "taurus_mysql80_x86-ondemand-2-1U4G_1_202103070251274842281_node01",
  "weight" : 0,
  "availability_zone" : [ {
    "code" : "az1",
    "description" : "AZ1"
  } ]
},
"readonly_nodes" : {
  "id" : "d23535333138462880bfa1838dfced2no07",
  "instance_id" : "7a871d6d494e4327ad2e326afb591108in07",
  "status" : "ACTIVE",
  "name" : "taurus_mysql80_x86-ondemand-2-1U4G_1_202103070251274842281_node02",
  "weight" : 100,
  "availability_zone" : [ {
    "code" : "az1",
    "description" : "AZ1"
  } ]
}
} ]
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.7.4 Querying Proxy Instance Specifications

Function

This API is used to query proxy instance specifications. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/instances/{instance_id}/proxy/flavors

Table 4-538 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-539 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Response Parameters

Status code: 200

Table 4-540 Response body parameters

Parameter	Type	Description
proxy_flavor_groups	Array of MysqlProxyFlavorGroups objects	Specification group information.

Table 4-541 MysqlProxyFlavorGroups

Parameter	Type	Description
group_type	String	Specification group type. It can be x86 or arm . <ul style="list-style-type: none"> • arm: exclusive Arm • x86: exclusive x86
proxy_flavors	Array of MysqlProxyComputeFlavor objects	Proxy specifications.

Table 4-542 MysqlProxyComputeFlavor

Parameter	Type	Description
vcpus	String	Number of vCPUs. For example, the value 1 indicates 1 vCPU.
ram	String	Memory size in GB.
db_type	String	Database type.
id	String	Specification ID of the proxy instance.
spec_code	String	Specification code of the proxy instance.
az_status	Object	key indicates the AZ ID, and value indicates the specification status in the AZ. Values: <ul style="list-style-type: none"> • normal • unsupported: indicates that the specifications are not supported.

Status code: 400

Table 4-543 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500**Table 4-544** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying proxy instance specifications

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
096c0fc43e804757b59946b80dc27f8bin07/proxy/flavors
```

Example Response

Status code: 200

Success.

```
{  
  "proxy_flavor_groups": {  
    "group_type": "X86",  
    "proxy_flavors": {  
      "id": "19be4c5d-d363-3342-bdbc-0dd9dbf7fafa",  
      "spec_code": "gaussdb.proxy.large.x86.2",  
      "vcpus": 2,  
      "ram": 4,  
      "db_type": "Proxy",  
      "az_status": {  
        "az1": "normal"  
      }  
    }  
  }  
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.7.5 Adding Proxy Nodes

Function

This API is used to add proxy nodes. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

POST /v3/{project_id}/instances/{instance_id}/proxy/enlarge

Table 4-545 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-546 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Table 4-547 Request body parameters

Parameter	Mandatory	Type	Description
node_num	Yes	Integer	The number of proxy nodes to be added. The value is an integer from 1 to 30. Restrictions: The total number of proxy nodes for an instance is no more than 32.
proxy_id	No	String	Proxy instance ID. If only one proxy instance is created, this parameter is not required. If multiple proxy instances are created, you must configure this parameter.

Response Parameters

Status code: 201

Table 4-548 Response body parameters

Parameter	Type	Description
job_id	String	Task ID.

Status code: 400

Table 4-549 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-550 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Adding proxy nodes

```
POST https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/61a4ea66210545909d74a05c27a7179ein07/proxy/enlarge
{
  "node_num" : 2,
  "proxy_id" : "151c14381ac14ecfb9703a745b992677po01"
}
```

Example Response

Status code: 201

Success.

```
{
  "job_id" : "04efe8e2-9255-44ae-a98b-d87cae411890"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.7.6 Deleting Proxy Nodes

Function

This API is used to delete proxy nodes. Before calling this API: Proxy instances are unavailable for DB instances in a DeC.

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

PUT /v3/{project_id}/instances/{instance_id}/proxy/{proxy_id}/reduce

Table 4-551 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .

Parameter	Mandatory	Type	Description
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.
proxy_id	Yes	String	Proxy instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-552 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Table 4-553 Request body parameter

Parameter	Mandatory	Type	Description
node_num	Yes	Integer	Number of proxy nodes to be deleted. The value is an integer from 1 to 14. Restrictions: The total number of proxy nodes of the instance ranges from 2 to 16.

Response Parameters

Status code: 201

Table 4-554 Response body parameters

Parameter	Type	Description
job_id	String	Task ID.

Status code: 400

Table 4-555 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-556 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Deleting proxy nodes

```
PUT https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/61a4ea66210545909d74a05c27a7179ein07/proxy/151c14381ac14ecfb9703a745b992677po01/reduce
{
  "node_num" : 1
}
```

Example Response

Status code: 201

Success.

```
{
  "job_id" : "04efe8e2-9255-44ae-a98b-d87cae411890"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.7.7 Changing the Specifications of a Proxy Instance

Function

This API is used to change the specifications of a proxy instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

PUT /v3/{project_id}/instances/{instance_id}/proxy/{proxy_id}/flavor

Table 4-557 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.
proxy_id	Yes	String	Proxy instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-558 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.

Parameter	Mandatory	Type	Description
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Table 4-559 Request body parameters

Parameter	Mandatory	Type	Description
flavor_ref	Yes	String	ID of the new flavor.

Response Parameters

Status code: 200

Table 4-560 Response body parameters

Parameter	Type	Description
job_id	String	Task ID.

Status code: 400

Table 4-561 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-562 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Changing the specifications of a proxy instance to 4 vCPUs and 8 GB memory

```
PUT https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/  
61a4ea66210545909d74a05c27a7179ein07/proxy/e87088f0b6a345e79db19d57c41fde15po01/flavor  
{  
  "flavor_ref" : "gaussdb.proxy.xlarge.arm.2"  
}
```

Example Response

Status code: 200

Success.

```
{  
  "job_id" : "04efe8e2-9255-44ae-a98b-d87cae411890"  
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.7.8 Assigning Read Weights

Function

This API is used to assign read weights for nodes. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

PUT /v3/{project_id}/instances/{instance_id}/proxy/{proxy_id}/weight

Table 4-563 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Parameter	Mandatory	Type	Description
proxy_id	Yes	String	Proxy instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-564 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Table 4-565 Request body parameters

Parameter	Mandatory	Type	Description
master_weight	No	Integer	Weight of the primary node.
readonly_nodes	No	Array of TaurusModifyProxyWeightReadOnlyNode objects	Weight information of the read replicas.

Table 4-566 TaurusModifyProxyWeightReadOnlyNode

Parameter	Mandatory	Type	Description
id	No	String	Read replica ID.
weight	No	Integer	Weight of the read replica.

Response Parameters

Status code: 200

Table 4-567 Response body parameters

Parameter	Type	Description
job_id	String	Task ID.

Status code: 400

Table 4-568 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-569 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Assigning the weight of the primary node to 100

```
PUT https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/
e73893ef73754465a8bd2e0857bbf13ein07/proxy/e87088f0b6a345e79db19d57c41fde15po01/weight
{
  "master_weight": 100
}
```

Example Response

Status code: 200

Success.

```
{
  "job_id": "04efe8e2-9255-44ae-a98b-d87c11411890"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.7.9 Changing the Routing Policy of a Proxy Instance

Function

This API is used to change the routing policy of a proxy instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

Constraints

This API is in the open beta test (OBT) phase. To use this API, submit a service ticket.

URI

PUT /v3/{project_id}/instances/{instance_id}/proxy/{proxy_id}/route-mode

Table 4-570 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.
proxy_id	Yes	String	Proxy instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-571 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Table 4-572 Request body parameters

Parameter	Mandatory	Type	Description
route_mode	Yes	Integer	Routing policy of the proxy instance. Values: <ul style="list-style-type: none"> • 0: weighted • 1: load balancing (The primary node does not process read requests.) • 2: load balancing (The primary node processes read requests.)
master_weight	No	Integer	Weight of the primary node. <ul style="list-style-type: none"> • If the routing policy is 0, the value is 0 to 1000. • If the routing policy is 1, the value is 0. • If the routing policy is 2, the value is 1.

Parameter	Mandatory	Type	Description
readonly_nodes	No	Array of ModifyProxyRouteModeWeightReadOnlyNode objects	Weight information of the read replicas.
new_node_auto_add_status	No	String	Whether new nodes are automatically associated with proxy instances. To configure this parameter, contact customer service. Values: <ul style="list-style-type: none"> ● ON: New nodes are automatically associated with proxy instances. ● OFF: New nodes are not automatically associate with proxy instances.
new_node_weight	No	Integer	Read weight of the new node. <ul style="list-style-type: none"> ● If route_mode is 0 and new_node_auto_add_status is ON, the value of this parameter ranges from 0 to 1000. ● If route_mode is not 0 and new_node_auto_add_status is OFF, this parameter is unavailable.

Table 4-573 ModifyProxyRouteModeWeightReadOnlyNode

Parameter	Mandatory	Type	Description
id	Yes	String	Read replica ID.
weight	Yes	Integer	Weight of the read replica. <ul style="list-style-type: none"> ● If the routing policy is 0, the value is 0 to 1000. ● If the routing policy is 1 or 2, the value is 0 or 1.

Response Parameters

Status code: 200

Table 4-574 Response body parameters

Parameter	Type	Description
job_id	String	Task ID.

Status code: 400

Table 4-575 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-576 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

- Changing the routing policy of a proxy instance to 0

PUT <https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/e73893ef73754465a8bd2e0857bbf13ein07/proxy/e87088f0b6a345e79db19d57c41fde15po01/route-mode>

```
{
  "route_mode" : 0,
  "master_weight" : 100,
  "readonly_nodes" : {
    "id" : "d23535333138462880bfa1838fdced2no07",
    "weight" : 200
  }
}
```
- Changing the routing policy of a proxy instance to 1

PUT <https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/e73893ef73754465a8bd2e0857bbf13ein07/proxy/e87088f0b6a345e79db19d57c41fde15po01/route-mode>

```
{
  "route_mode" : 1,
  "master_weight" : 0,
  "readonly_nodes" : {
    "id" : "d23535333138462880bfa1838fdced2no07",
    "weight" : 1
  }
}
```

- Changing the routing policy of a proxy instance to 2

```
PUT https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/
e73893ef73754465a8bd2e0857bbf13ein07/proxy/e87088f0b6a345e79db19d57c41fde15po01/route-
mode
```

```
{
  "route_mode": 2,
  "master_weight": 1,
  "readonly_nodes": {
    "id": "d23535333138462880bfa1838fdced2no07",
    "weight": 0
  }
}
```

Example Response

Status code: 200

Success.

```
{
  "job_id": "04efe8e2-9255-44ae-a98b-d87c11411890"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.7.10 Enabling or Disabling Transaction Splitting for a Proxy Instance

Function

This API is used to enable or disable transaction splitting for a proxy instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

POST /v3/{project_id}/instances/{instance_id}/proxy/transaction-split

Table 4-577 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .

Parameter	Mandatory	Type	Description
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-578 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Table 4-579 Request body parameters

Parameter	Mandatory	Type	Description
transaction_split	Yes	String	Whether transaction splitting is enabled. Values: <ul style="list-style-type: none"> • ON: Transaction splitting is enabled. • OFF: Transaction splitting is disabled.
proxy_id_list	Yes	Array of strings	Proxy instances under a DB instance.

Response Parameters

Status code: 200

Table 4-580 Response body parameters

Parameter	Type	Description
job_id	String	Workflow ID

Status code: 400

Table 4-581 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-582 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Disabling transaction splitting for a proxy instance

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/6b030d160ac24eda9a5320fb38dc2d0ain07/proxy/transaction-split
{
  "transaction_split" : "OFF",
  "proxy_id_list" : [ "2a2060f2486e4a47934182d91a3b53d2po01" ]
}
```

Example Response

Status code: 200

success

```
{
  "job_id" : "11921bf5-f286-45ee-ab35-12a3d4084c57"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.7.11 Enabling or Disabling Automatic Association of New Nodes with Proxy Instances

Function

This API is used to enable or disable automatic association of new nodes with proxy instances. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

Constraints

This API is in the open beta test (OBT) phase. To use this API, submit a service ticket.

URI

POST /v3/{project_id}/instances/{instance_id}/proxy/{proxy_id}/new-node-auto-add

Table 4-583 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.
proxy_id	Yes	String	Proxy instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-584 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Table 4-585 Request body parameters

Parameter	Mandatory	Type	Description
switch_status	Yes	String	Whether new nodes are automatically associated with proxy instances. Values: <ul style="list-style-type: none"> • ON: New nodes are automatically associated with proxy instances. • OFF: New nodes are not automatically associated with proxy instances.
weight	No	Integer	Read weight of the new node. <ul style="list-style-type: none"> • If switch_status is ON, the value ranges from 0 to 1000. • If switch_status is OFF, this parameter is unavailable.

Response Parameters

Status code: 200

Table 4-586 Response body parameters

Parameter	Type	Description
result	String	Result of enabling or disabling association of new nodes with proxy instances.

Status code: 400**Table 4-587** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500**Table 4-588** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Automatically associating new nodes with proxy instances

```
POST https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/
e73893ef73754465a8bd2e0857bbf13ein07/proxy/e87088f0b6a345e79db19d57c41fde15po01/new-node-
auto-add
```

```
{
  "switch_status": "ON",
  "weight": 100
}
```

Example Response

Status code: 200

Success.

```
{
  "result": "success"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.7.12 Changing Session Consistency of a Proxy Instance

Function

This API is used to change the session consistency of a proxy instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

PUT /v3/{project_id}/instances/{instance_id}/proxy/{proxy_id}/session-consistence

Table 4-589 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.
proxy_id	Yes	String	Proxy instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-590 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.

Parameter	Mandatory	Type	Description
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Table 4-591 Request body parameter

Parameter	Mandatory	Type	Description
session_consistence	Yes	String	Whether session consistency is enabled. Values: <ul style="list-style-type: none">• true: Session consistency is enabled.• false: Session consistency is disabled.
consistence_mode	No	String	Consistency mode. The default value is empty. In this case, the value of session_consistence is used. Values: <ul style="list-style-type: none">• session: session consistency• global: global consistency• eventual: eventual consistency

Response Parameters

Status code: 200

Table 4-592 Response body parameters

Parameter	Type	Description
job_id	String	Task ID.

Status code: 400

Table 4-593 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500**Table 4-594** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Enabling session consistency for a proxy instance

```
PUT https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/
d512257ecca04d96a0f3a9021018a385in07/proxy/7bf4a8bbb4f4fb58233a242ee13603bpo01/session-
consistence
{
  "session_consistence": "true"
}
```

Example Response

Status code: 200

Success

```
{
  "job_id": "e0fbbfc8-1ac4-4721-b9e9-7dd685c5bdd7"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.7.13 Changing the Connection Pool Type of a Proxy Instance

Function

This API is used to change the connection pool type of a proxy instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

Constraints

This API is in the open beta test (OBT) phase. To use this API, submit a service ticket.

URI

PUT /v3/{project_id}/instances/{instance_id}/proxy/{proxy_id}/connection-pool-type

Table 4-595 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.
proxy_id	Yes	String	Proxy instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-596 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Table 4-597 Request body parameters

Parameter	Mandatory	Type	Description
connection_pool_type	Yes	String	Connection pool type. Values: <ul style="list-style-type: none"> CLOSED: The connection pool is closed. SESSION: The session-level connection pool is enabled.

Response Parameters

Status code: 200

Table 4-598 Response body parameters

Parameter	Type	Description
job_id	String	Task ID.

Status code: 400

Table 4-599 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-600 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Enabling the session connection pool for a proxy instance

```
PUT https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instance/af315b8e6aaa41799bd9a31f2de15abcin07/proxy/5881e1ca66af4aefbc64dc2874e55b3fpo01/connection-
```



```
pool-type
{
  "connection_pool_type" : "SESSION"
}
```

Example Response

Status code: 200

Success.

```
{
  "job_id" : "a4217ac4-12cd-4fb3-acfc-db4a4a1896ea"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.7.14 Changing the Port of a Proxy Instance

Function

This API is used to change the port of a proxy instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

PUT /v3/{project_id}/instances/{instance_id}/proxy/{proxy_id}/port

Table 4-601 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.
proxy_id	Yes	String	Proxy instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-602 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Table 4-603 Request body parameters

Parameter	Mandatory	Type	Description
port	Yes	Integer	New port of the proxy instance. Value range: 1025 to 65534, excluding 1033, 5342 to 5345, 12017, 20000, 20201, 20202, 33062, and 33071.

Response Parameters

Status code: 200

Table 4-604 Response body parameters

Parameter	Type	Description
job_id	String	ID of the task for changing the port of the proxy instance.

Status code: 400

Table 4-605 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500**Table 4-606** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Changing the port of a proxy instance

```
PUT https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/instances/096c0fc43e804757b59946b80dc27f8bin07/proxy/fbece38953e24a2b891488ed2fdf81abpo01/port
{
  "port" : 3308
}
```

Example Response

Status code: 200

Success.

```
{
  "job_id" : "*****"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.7.15 Upgrading the Kernel Version of a Proxy Instance

Function

This API is used to upgrade the kernel version of a proxy instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

POST /v3/{project_id}/instances/{instance_id}/proxy/{proxy_id}/upgrade-version

Table 4-607 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.
proxy_id	Yes	String	Proxy instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-608 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain the value, call the API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Table 4-609 Request body parameters

Parameter	Mandatory	Type	Description
source_version	Yes	String	Source kernel version.
target_version	Yes	String	Target kernel version.

Response Parameters

Status code: 200

Table 4-610 Response body parameter

Parameter	Type	Description
update_result	Array of ProxyUpgradeVersionDetail objects	Proxy instance upgrade information.

Table 4-611 ProxyUpgradeVersionDetail

Parameter	Type	Description
instance_id	String	Instance ID.
workflow_id	String	Workflow ID.
state	String	Returned status.
error_message	String	Error message.

Status code: 400

Table 4-612 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-613 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Upgrading the kernel version of a proxy instance

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/517ea793ab91438cbfcd9c4b1c958b1ein07/proxy/0f46fc46396e4fb19a0cb52f578e9511po01/upgrade-version
{
  "source_version": "2.23.12.000",
  "target_version": "2.24.03.000"
}
```

Example Response

Status code: 200

Success.

```
{
  "update_result": [ {
    "workflow_id": "375ac6a4-2788-4e45-83bf-8a9d2324317f",
    "state": "ACCEPT",
    "error_message": null
  }, {
    "workflow_id": "375ac6a4-2788-4e45-83be-8a9d2324327f",
    "state": "REJECT",
    "error_message": "Upgrade failed due to insufficient subnet ip"
  } ]
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.7.16 Modifying the Name of a Proxy Instance

Function

This API is used to modify the name of a proxy instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

PUT /v3/{project_id}/instances/{instance_id}/proxy/{proxy_id}/rename

Table 4-614 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.
proxy_id	Yes	String	Proxy instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-615 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Content type. Value: application/json
X-Auth-Token	Yes	String	User token. To obtain the value, call the API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.

Parameter	Mandatory	Type	Description
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Table 4-616 Request body parameter

Parameter	Mandatory	Type	Description
alias	Yes	String	New name of the proxy instance.

Response Parameters

Status code: 200

Table 4-617 Response body parameter

Parameter	Type	Description
result	String	The modification is successful or fails.

Status code: 400

Table 4-618 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-619 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Modifying the name of a proxy instance

```
PUT https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/4785fc80386846f3ad2bf4e0cd53a4cein07/proxy/286a4a1a45e3400c907b51b0721377f9po01/rename
{
  "alias" : "newName"
}
```

Example Response

Status code: 200

Success.

```
{
  "result" : "success"
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.7.17 Querying Access Control Settings of a Proxy Instance

Function

This API is used to query access control settings of a proxy instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/instances/{instance_id}/proxy/{proxy_id}/ipgroup

Table 4-620 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.
proxy_id	Yes	String	Proxy instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-621 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain the value, call the API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Response Parameters

Status code: 200

Table 4-622 Response body parameters

Parameter	Type	Description
enable_ip_group	Boolean	Whether access control is enabled. The value can be true or false .
type	String	Whitelist (white) or blacklist (black).

Parameter	Type	Description
ip_group	ProxyIpGroupDetail object	Details about the whitelist or blacklist.

Table 4-623 ProxyIpGroupDetail

Parameter	Type	Description
id	String	ID of an IP address group.
name	String	Name of an IP address group.
ip_list	Array of IpGroupItem objects	IP addresses in an IP address group.

Table 4-624 IpGroupItem

Parameter	Type	Description
ip	String	IP address or CIDR block.
description	String	Description of the IP address.

Status code: 400

Table 4-625 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-626 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying access control settings of a proxy instance

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/4785fc80386846f3ad2bf4e0cd53a4cein07/proxy/286a4a1a45e3400c907b51b0721377f9po01/ipgroup
```

Example Response

Status code: 200

Success.

```
{
  "enable_ip_group": false,
  "type": "black",
  "ip_group": [ {
    "id": "a4217ac4-12cd-4fb3-acfc-db4a4a1896ea",
    "name": "PROXY-8c72c1b6985f414da0cfbc76ad7effc1po01_elblpGroup",
    "ip_list": [ {
      "ip": "192.127.0.1",
      "description": "proxy ipgroup"
    }, {
      "ip": "192.127.0.2",
      "description": "proxy ipgroup"
    } ]
  } ]
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.7.18 Querying the Minor Version of a Proxy Instance

Function

This API is used to query the minor version of a proxy instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/instances/{instance_id}/proxy/{proxy_id}/{engine_name}/
proxy-version

Table 4-627 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.
engine_name	Yes	String	Engine.
proxy_id	Yes	String	Proxy instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-628 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain the value, call the API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Response Parameters

Status code: 200

Table 4-629 Response body parameters

Parameter	Type	Description
current_version	String	Current version of the proxy instance.
latest_version	String	Latest version of the proxy instance.
can_upgrade	Boolean	Whether the version can be upgraded.

Status code: 400**Table 4-630** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500**Table 4-631** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying the minor version of a proxy instance

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
4785fc80386846f3ad2bf4e0cd53a4cein07/proxy/286a4a1a45e3400c907b51b0721377f9po01/taurusproxy/  
proxy-version
```

Example Response

Status code: 200

Success.

```
{  
  "current_version" : "2.23.12.000",  
  "latest_version" : "2.24.03.000",  
  "can_upgrade" : true  
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.7.19 Modifying Parameters of a Proxy Instance

Function

This API is to modify parameters of a proxy instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

PUT /v3/{project_id}/instances/{instance_id}/proxy/{proxy_id}/configurations

Table 4-632 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.
proxy_id	Yes	String	Proxy instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-633 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Table 4-634 Request body parameter

Parameter	Mandatory	Type	Description
configurations	Yes	Array of UpdateProxyConfigurationItem objects	Configurations to be modified.

Table 4-635 UpdateProxyConfigurationItem

Parameter	Mandatory	Type	Description
name	Yes	String	Parameter name.
value	Yes	String	Parameter value.
elem_type	Yes	String	Parent tag type.

Response Parameters

Status code: 200

Table 4-636 Response body parameters

Parameter	Type	Description
job_id	String	Task ID.

Status code: 400

Table 4-637 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-638 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Modifying parameters of a proxy instance

```
PUT https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/61a4ea66210545909d74a05c27a7179ein07/proxy/e87088f0b6a345e79db19d57c41fde15po01/configurations
```

```
{
  "configurations" : [ {
    "name" : "multiStatementType",
    "value" : "Loose",
    "elem_type" : "system"
  } ]
}
```

Example Response

Status code: 200

Success.

```
{
  "job_id" : "994cb0aa-9547-4271-bfc2-08f968276744"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.7.20 Querying Kernel Parameters of a Proxy Instance

Function

This API is used to query kernel parameters of a proxy instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/instances/{instance_id}/proxy/{proxy_id}/configurations

Table 4-639 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID.
proxy_id	Yes	String	Proxy instance ID.

Table 4-640 Query parameters

Parameter	Mandatory	Type	Description
limit	No	Integer	Number of records to be queried. The default value is 10 . The value must be a positive integer. The minimum value is 1 and the maximum value is 100 .

Parameter	Mandatory	Type	Description
offset	No	Integer	Index offset. If offset is set to <i>N</i> , the query starts from the <i>N</i> +1 piece of data. The value is 0 by default, indicating that the query starts from the first piece of data. The value must be a number but cannot be a negative number.
name	No	String	Parameter name. If this parameter is left empty, all parameters are queried.

Request Parameters

Table 4-641 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain the value, call the API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
Content-Type	Yes	String	Content type. Value: application/json
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Response Parameters

Status code: 200

Table 4-642 Response body parameters

Parameter	Type	Description
total_count	String	Total number of parameters.

Parameter	Type	Description
configurations	Array of ProxyConfiguration objects	Parameters that can be configured for the kernel.

Table 4-643 ProxyConfiguration

Parameter	Type	Description
name	String	Parameter name.
data_type	String	Data type of the parameter.
elem_type	String	Parent tag type of the parameter.
value_range	String	Value range.
value	String	Default parameter value.
description	String	Parameter description.

Status code: 400**Table 4-644** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500**Table 4-645** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying kernel parameters of a proxy instance

```
GET https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/61a4ea66210545909d74a05c27a7179ein07/proxy/151c14381ac14ecfb9703a745b992677po01/configurations
```

Example Response

Status code: 200

Success.

```
{
  "total_count" : 1,
  "configurations" : [ {
    "name" : "slowLogQueryTime",
    "data_type" : "integer",
    "elem_type" : "system",
    "value_range" : "200-50000",
    "value" : 500,
    "description" : "The default threshold for proxy slowLogQueryTime is 500 ms."
  } ]
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.7.21 Enabling or Disabling Access Control

Function

This API is used to enable or disable access control. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

POST /v3/{project_id}/instances/{instance_id}/proxy/{proxy_id}/access-control-switch

Table 4-646 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.
proxy_id	Yes	String	Proxy instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-647 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Table 4-648 Request body parameter

Parameter	Mandatory	Type	Description
open_access_control	Yes	Boolean	Whether to enable access control. Values: <ul style="list-style-type: none"> • true: Access control is enabled. • false: Access control is disabled.

Response Parameters

Status code: 200

Table 4-649 Response body parameters

Parameter	Type	Description
open_access_control	Boolean	Whether access control is enabled. Values: <ul style="list-style-type: none"> true: enabled false: disabled

Status code: 400

Table 4-650 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-651 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

- Enabling access control**
 POST https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/61a4ea66210545909d74a05c27a7179ein07/proxy/e87088f0b6a345e79db19d57c41fde15po01/access-control-switch


```
{
  "open_access_control" : true
}
```
- Disabling access control**
 POST https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/61a4ea66210545909d74a05c27a7179ein07/proxy/e87088f0b6a345e79db19d57c41fde15po01/access-control-switch


```
{
  "open_access_control" : false
}
```

Example Response

Status code: 200

Success.

- Enabling access control

```
{  
  "open_access_control" : true  
}
```
- Disabling access control

```
{  
  "open_access_control" : false  
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.7.22 Configuring Access Control Rules

Function

This API is used to configure access control rules. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

POST /v3/{project_id}/instances/{instance_id}/proxy/{proxy_id}/access-control

Table 4-652 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.
proxy_id	Yes	String	Proxy instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-653 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Table 4-654 Request body parameter

Parameter	Mandatory	Type	Description
type	Yes	String	Access control type. Values: <ul style="list-style-type: none"> • white: indicates the whitelist. • black: indicates the blacklist.
ip_list	Yes	Array of AccessControlRule objects	Array of IP addresses that control access. A maximum of 300 IP addresses or CIDR blocks can be added.

Table 4-655 AccessControlRule

Parameter	Mandatory	Type	Description
ip	Yes	String	IP address or CIDR block.
description	No	String	Remarks. Character length: 0-50. Angle brackets (<>) are not allowed.

Response Parameters

Status code: 200

Table 4-656 Response body parameters

Parameter	Type	Description
open_access_control	Boolean	Whether access control is enabled. Values: <ul style="list-style-type: none"> true: enabled false: disabled

Status code: 400

Table 4-657 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-658 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Configuring access control rules

```
POST https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/61a4ea66210545909d74a05c27a7179ein07/proxy/e87088f0b6a345e79db19d57c41fde15po01/access-control
{
  "type": "black",
  "ip_list": [ {
    "ip": "192.107.0.1",
    "description": "black01"
  } ]
}
```

Example Response

Status code: 200

Success.

```
{  
  "open_access_control" : false  
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.7.23 Enabling or Disabling SSL for a Proxy Instance

Function

This API is used to enable or disable SSL for a proxy instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

PUT /v3/{project_id}/instances/{instance_id}/proxy/{proxy_id}/ssl

Table 4-659 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID of a tenant in a project.
proxy_id	Yes	String	Proxy instance ID.

Request Parameters

Table 4-660 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Table 4-661 Request body parameters

Parameter	Mandatory	Type	Description
ssl_option	Yes	Boolean	Whether to enable SSL. Values: <ul style="list-style-type: none"> • true: SSL is enabled. • false: SSL is disabled.

Response Parameters

Status code: 200

Table 4-662 Response body parameters

Parameter	Type	Description
job_id	String	Task ID.

Status code: 400

Table 4-663 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-664 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Enabling SSL

```
PUT https://{endpoint}/v3/056538411200d4cd2f79c003c7606412/instances/096c0fc43e804757b59946b80dc27f8bin07/proxyId/2ec617ba62da4eafb921b69438beed3cpo01/ssl
{
  "ssl_option": true
}
```

Example Response

Status code: 200

Success.

```
{
  "job_id": "e0fbbfc8-1ac4-4721-b9e9-7dd685c5bdd7"
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.7.24 Rebooting a Proxy Instance

Function

This API is used to reboot a proxy instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

POST /v3/{project_id}/instances/{instance_id}/proxy/{proxy_id}/restart

Table 4-665 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID.
proxy_id	Yes	String	Proxy instance ID.

Request Parameters

Table 4-666 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain the value, call the API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
Content-Type	Yes	String	Content type. Value: application/json
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Response Parameters

Status code: 200

Table 4-667 Response body parameter

Parameter	Type	Description
job_id	String	Workflow ID.

Status code: 400

Table 4-668 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-669 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Rebooting a proxy instance

```
POST https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/61a4ea66210545909d74a05c27a7179ein07/proxy/151c14381ac14ecfb9703a745b992677po01/restart
```

Example Response

Status code: 200

Success.

```
{
  "job_id" : "dff1d289-4d03-4942-854f-463ea07c000d"
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.8 Log Management

4.8.1 Enabling or Disabling SQL Explorer

Function

This API is used to enable or disable SQL Explorer. If SQL Explorer is disabled, SQL Explorer may become unavailable for DAS and DBSS. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

POST /v3/{project_id}/instance/{instance_id}/audit-log/switch

Table 4-670 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-671 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Table 4-672 Request body parameter

Parameter	Mandatory	Type	Description
switch_status	Yes	String	Whether SQL Explorer is enabled. Values: <ul style="list-style-type: none"> • ON: SQL Explorer is enabled. • OFF: SQL Explorer is disabled.

Response Parameters

Status code: 200

Table 4-673 Response body parameter

Parameter	Type	Description
result	String	Result for enabling or disabling SQL Explorer.

Status code: 400

Table 4-674 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500**Table 4-675** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Enabling SQL Explorer

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instance/61a4ea66210545909d74a05c27a7179ein07/audit-log/status
{
  "switch_status": "ON"
}
```

Example Response

Status code: 200

Success.

```
{
  "result": "success"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.8.2 Querying Whether SQL Explorer Is Enabled

Function

This API is used to query whether SQL Explorer is enabled. Before calling this API:

- Learn how to [authorize and authenticate](#) it.

- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/instance/{instance_id}/audit-log/switch-status

Table 4-676 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-677 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Response Parameters

Status code: 200

Table 4-678 Response body parameter

Parameter	Type	Description
switch_status	String	Whether SQL Explorer is enabled. Values: <ul style="list-style-type: none"> ● ON: SQL Explorer is enabled. ● OFF: SQL Explorer is disabled.

Status code: 400

Table 4-679 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-680 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying whether SQL Explorer is enabled

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instance/61a4ea66210545909d74a05c27a7179ein07/audit-log/switch-status
```

Example Response

Status code: 200

Success.

```
{
  "switch_status": "ON"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.8.3 Querying Slow Query Logs

Function

This API is used to query slow query logs of a specified DB instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

POST /v3.1/{project_id}/instances/{instance_id}/slow-logs

Table 4-681 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Explanation: Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID . Constraints: None Value range: The value can contain 32 characters. Only letters and digits are allowed. Default value: None
instance_id	Yes	String	Explanation: Instance ID, which uniquely identifies an instance. Constraints: None Value range: The value can contain 36 characters with a suffix of in07 . Only letters and digits are allowed. Default value: None

Request Parameters

Table 4-682 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Explanation: User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value. Constraints: None Value range: None Default value: None
X-Language	No	String	Explanation: Request language type. Constraints: None Value range: <ul style="list-style-type: none">• en-us• zh-cn Default value: en-us

Table 4-683 Request body parameters

Parameter	Mandatory	Type	Description
node_id	Yes	String	Explanation: Node ID. Constraints: None Value range: The value can contain 36 characters, starting with a UUID and ending with no07 . Only letters and digits are allowed. Default value: None
start_time	Yes	String	Explanation: Start time in the "yyyy-mm-ddThh:mm:ssZ" format. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, if the time zone offset is one hour, the value of Z is +0100 . Constraints: None Value range: The time is earlier than the current time. Default value: None

Parameter	Mandatory	Type	Description
end_time	Yes	String	<p>Explanation: End time in the "yyyy-mm-ddThh:mm:ssZ" format. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, if the time zone offset is one hour, the value of Z is +0100.</p> <p>Constraints: None</p> <p>Value range: The time is later than the start time and earlier than the current time.</p> <p>Default value: None</p>
limit	Yes	Integer	<p>Explanation: Number of records to be queried.</p> <p>Constraints: None</p> <p>Value range: 1-5000</p> <p>Default value: None</p>
line_num	No	String	<p>Explanation: Sequence number of a log event. This parameter is not required for the first query, but is required for subsequent pagination queries. The value can be obtained from the response of the last query.</p> <p>Constraints: None</p> <p>Value range: The value is a string of 13 digits.</p> <p>Default value: None</p>

Parameter	Mandatory	Type	Description
operate_type	No	String	<p>Explanation: SQL statement type.</p> <p>Constraints: None</p> <p>Value range: If this parameter is left blank or set to ALL, all statement types are queried. You can also specify the following log types:</p> <ul style="list-style-type: none"> • INSERT • UPDATE • SELECT • DELETE • ALTER • DROP • CREATE <p>Default value: None</p>
database	No	String	<p>Explanation: Database that slow query logs belong to.</p> <p>Constraints: None</p> <p>Value range: None</p> <p>Default value: None</p>

Response Parameters

Status code: 200

Table 4-684 Response body parameter

Parameter	Type	Description
slow_log_list	Array of LtsLogSlowDetail objects	<p>Explanation: Slow query logs.</p>

Table 4-685 LtsLogSlowDetail

Parameter	Type	Description
node_id	String	Explanation: Node ID. Value range: The value can contain 36 characters, starting with a UUID and ending with no07 . Only letters and digits are allowed.
count	String	Explanation: Number of executions. Value range: None
time	String	Explanation: Execution time. Value range: None
lock_time	String	Explanation: Lock wait time. Value range: None
rows_sent	String	Explanation: Number of sent rows. Value range: None
rows_examined	String	Explanation: Number of scanned rows. Value range: None
database	String	Explanation: Database that slow query logs belong to. Value range: gaussdb-mysql
users	String	Explanation: Account name. Value range: None

Parameter	Type	Description
query_sample	String	Explanation: Execution syntax. Value range: None
type	String	Explanation: Statement type. Value range: <ul style="list-style-type: none"> • INSERT • UPDATE • SELECT • DELETE • ALTER • DROP • CREATE
start_time	String	Explanation: Start time in the UTC format. Value range: None
client_ip	String	Explanation: IP address. Value range: None
line_num	String	Explanation: Sequence number of a log event. Value range: None

Status code: 400

Table 4-686 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-687 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying slow query logs

```
POST https://{endpoint}/v3.1/056538411200d4cd2f79c003c7606412/instances/096c0fc43e804757b59946b80dc27f8bin07/slow-logs
{
  "start_time": "2022-11-20T00:00:00+0800",
  "end_time": "2022-11-29T00:00:00+0800",
  "node_id": "cc07c60e94ec4575989840e648fb4f66no07",
  "limit": 10,
  "line_num": 1669344916000
}
```

Example Response

Status code: 200

Success.

```
{
  "slow_log_list": [ {
    "node_id": "cc07c60e94ec4575989840e648fb4f66no07",
    "count": 1,
    "time": "1.04899 s",
    "lock_time": "0.00003 s",
    "rows_sent": 0,
    "rows_examined": 0,
    "database": "gaussdb-mysql",
    "users": "root",
    "query_sample": "INSERT INTO time_zone_name (Name, Time_zone_id) VALUES (N @time_zone_id);",
    "type": "INSERT",
    "start_time": "2022-11-25T10:55:16.000",
    "client_ip": "192.*.*.1",
    "line_num": 1669344916000
  } ]
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.8.4 Querying Error Logs

Function

This API is used to query error logs of a specified DB instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

POST /v3.1/{project_id}/instances/{instance_id}/error-logs

Table 4-688 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-689 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Table 4-690 Request body parameters

Parameter	Mandatory	Type	Description
node_id	Yes	String	Node ID.
start_time	Yes	String	Start time in the "yyyy-mm-ddThh:mm:ssZ" format. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, if the time zone offset is one hour, the value of Z is +0100 .
end_time	Yes	String	End time in the "yyyy-mm-ddThh:mm:ssZ" format. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, if the time zone offset is one hour, the value of Z is +0100 .
limit	Yes	Integer	Number of records to be queried.
line_num	No	String	Sequence number of a log event. This parameter is not required for the first query, but is required for subsequent pagination queries. The value can be obtained from the response of the last query.
level	No	String	Log level. The default value is ALL . Values: <ul style="list-style-type: none"> • ALL • INFO • LOG • WARNING • ERROR • FATAL • PANIC • NOTE

Response Parameters

Status code: 200

Table 4-691 Response body parameter

Parameter	Type	Description
error_log_list	Array of LtsLogErrorDetail objects	Error logs.

Table 4-692 LtsLogErrorDetail

Parameter	Type	Description
node_id	String	Node ID.
time	String	Execution time.
level	String	Log level.
content	String	Error log content.
line_num	String	Sequence number of a log event.

Status code: 400

Table 4-693 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-694 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying error logs

```
POST https://{endpoint}/v3.1/056538411200d4cd2f79c003c7606412/instances/096c0fc43e804757b59946b80dc27f8bin07/error-logs
{
  "start_time": "2022-11-20T00:00:00+0800",
  "end_time": "2022-11-29T00:00:00+0800",
  "node_id": "cc07c60e94ec4575989840e648fb4f66no07",
  "limit": 10,
  "line_num": 1669344916000
}
```

Example Response

Status code: 200

Success.

```
{
  "error_log_list": [ {
    "node_id": "cc07c60e94ec4575989840e648fb4f66no07",
    "time": "2022-11-25T10:55:16.000",
    "level": "ERROR",
    "content": "[MY013508] [Repl] do failed: 1",
    "line_num": 1669344916000
  } ]
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.8.5 Obtaining the Temporary Link for Downloading Full SQL

Function

This API is used to obtain the temporary link for downloading full SQL. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/instance/{instance_id}/auditlog/download-link

Table 4-695 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .

Parameter	Mandatory	Type	Description
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Table 4-696 Query parameters

Parameter	Mandatory	Type	Description
start_time	Yes	String	Start time, which cannot be earlier than the instance creation time. The format is yyyy-mm-ddThh:mm:ssZ. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, if the time zone offset is one hour, the value of Z is +0100 .
end_time	Yes	String	End time, which cannot be later than the current time. The format is yyyy-mm-ddThh:mm:ssZ. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, if the time zone offset is one hour, the value of Z is +0100 .
node_id	No	String	Node ID. <ul style="list-style-type: none"> If this parameter is specified, the link is only used for downloading full SQL of the node. If this parameter is not specified, the link is used for downloading full SQL of all nodes of the instance.

Parameter	Mandatory	Type	Description
last_file_name	No	String	Name of the last file queried last time. <ul style="list-style-type: none"> If this parameter is specified, the query starts from the file name in alphabetical order. If this parameter is not specified, the query starts from the first file.
limit	No	Integer	Number of files returned in one query. Default value: 10 . Value: an integer ranging from 1 to 50.

Request Parameters

Table 4-697 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> en-us zh-cn

Response Parameters

Status code: 200

Table 4-698 Response body parameter

Parameter	Type	Description
files	Array of FileInfo objects	Obtained full SQL file information.

Table 4-699 FileInfo

Parameter	Type	Description
name	String	File name.
size	Long	File size, in KB.
updated_time	String	Last modification time of the SQL file. The format is yyyy-mm-ddThh:mm:ssZ. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, if the time zone offset is one hour, the value of Z is +0100 .
download_link	String	Link for downloading the file.
link_expired_time	String	Link expiration time. The format is yyyy-mm-ddThh:mm:ssZ. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, if the time zone offset is one hour, the value of Z is +0100 .

Status code: 400

Table 4-700 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-701 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Obtaining the temporary link for downloading full SQL

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instance/669a94abef9f4979b2dfba92f48f4042in07/auditlog/download-link?node_id=2e723b45786148fc94c8737f5980786cno07&last_file_name=20230724160316_99b1d48896bb44178b715d64b68603f9in07_6a21d5df9bb24f5db83121c5fec0b1d2no07_SQLAudit_8b4b53d2-29f8-11ee-92aa-fa163ef00f0d&limit=10&start_time=2023-07-24T09:27:00+0800&end_time=2023-07-25T15:00:14+0800
```

Example Response

Status code: 200

Success.

```
{
  "files" : [ {
    "name" :
    "20230706023359_669a94abef9f4979b2dfba92f48f4042in07_b051c8f7b98f4deef88ba97c8daba9dno07_SQLAudit_903bdbb6-1ba5-11ee-8b97-fa163ef0f8c2",
    "size" : 928,
    "updated_time" : "2023-07-06T02:43:57+0800",
    "download_link" : "https://obs.obs.domainname.com/bucketname/userid_instanceid/20230706/SQLAudit/xxxxxx",
    "link_expired_time" : "2023-07-13T012:30:36+0800"
  } ]
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.8.6 Querying LTS Configurations of an Instance

Function

This API is used to query LTS configurations of an instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/logs/lts-configs

Table 4-702 URI parameter

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .

Table 4-703 Query parameters

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	Enterprise project ID.
instance_id	No	String	Instance ID.
instance_name	No	String	Instance name.
limit	No	String	Number of records to be queried. Value range: 1 to 100 . Default value: 10
offset	No	String	Index offset. If offset is set to <i>N</i> , the query starts from the <i>N</i> +1 piece of data. If action is set to filter , offset is 0 by default, indicating that the query starts from the first piece of data.

Request Parameters

Table 4-704 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain the value, call the API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
Content-Type	Yes	String	Content type. Value: application/json
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Response Parameters

Status code: 200

Table 4-705 Response body parameters

Parameter	Type	Description
instance_lts_configs	Array of LtsConfigsV3 objects	LTS configurations of an instance.
total_count	Integer	Total number.

Table 4-706 LtsConfigsV3

Parameter	Type	Description
lts_configs	Array of LtsConfig objects	LTS configurations.
instance	InstanceLtsBasicInfo object	Instance information.

Table 4-707 LtsConfig

Parameter	Type	Description
log_type	String	Log type.
lts_group_id	String	Log group ID.
lts_stream_id	String	Log stream ID.
enabled	Boolean	Whether LTS configurations are enabled.

Table 4-708 InstanceLtsBasicInfo

Parameter	Type	Description
id	String	Instance ID.
name	String	Instance name.
mode	String	Instance type.
engine_name	String	Engine name.
engine_version	String	Engine version.
status	String	Status.
enterprise_project_id	String	Enterprise project ID.
enterprise_project_name	String	Enterprise project name.

Status code: 400**Table 4-709** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-710 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

null

```
GET https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663//logs/lts-configs
```

Example Response

Status code: 200

Success.

```
{
  "total_count": 1,
  "instance_lts_configs": [ {
    "lts_configs": [ {
      "log_type": "error_log",
      "lts_group_id": "c3dd5233-24a1-443c-6b40-310b3ad85382",
      "lts_stream_id": "9b476e31-b745-4e76-8d78-2081168651f7",
      "enabled": true
    } ],
    "instance": {
      "id": "61a4ea66210545909d74a05c27a7179ein07",
      "name": "gaussdb-mysql-instance01",
      "mode": "ha",
      "engine_name": "gaussdb-mysql",
      "engine_version": 2.0,
      "status": "normal",
      "enterprise_project_id": 0,
      "enterprise_project_name": "eps"
    }
  } ]
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.8.7 Deleting LTS Configurations in Batches

Function

This API is used to delete LTS configurations in batches. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

DELETE /v3/{project_id}/logs/lts-configs

Table 4-711 URI parameter

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .

Request Parameters

Table 4-712 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain the value, call the API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
Content-Type	Yes	String	Content type. Value: application/json
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Table 4-713 Request body parameter

Parameter	Mandatory	Type	Description
log_configs	Yes	Array of InstanceDeleteLtsConfig objects	Log configurations.

Table 4-714 InstanceDeleteLtsConfig

Parameter	Mandatory	Type	Description
instance_id	Yes	String	Instance ID.
log_type	Yes	String	Log type.

Response Parameters

Status code: 400

Table 4-715 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-716 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Deleting LTS configurations in batches

```
DELETE https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/logs/lts-configs
```

```
{
  "log_configs": [ {
    "instance_id": "61a4ea66210545909d74a05c27a7179ein07",
    "log_type": "error_log"
  }
]
```

```
}]  
}
```

Example Response

None

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.8.8 Creating LTS Configurations in Batches

Function

This API is used to create LTS configurations in batches. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

POST /v3/{project_id}/logs/lts-configs

Table 4-717 URI parameter

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .

Request Parameters

Table 4-718 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain the value, call the API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
Content-Type	Yes	String	Content type. Value: application/json
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Table 4-719 Request body parameter

Parameter	Mandatory	Type	Description
log_configs	Yes	Array of InstanceSaveLtsConfig objects	Log configuration list.

Table 4-720 InstanceSaveLtsConfig

Parameter	Mandatory	Type	Description
instance_id	Yes	String	Instance ID.
log_type	Yes	String	Log type.
lts_group_id	Yes	String	Log group ID.
lts_stream_id	Yes	String	Log stream ID.

Response Parameters

Status code: 400

Table 4-721 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-722 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Creating LTS configurations in batches

POST https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/logs/lts-configs

```
{
  "log_configs": [ {
    "instance_id": "61a4ea66210545909d74a05c27a7179ein07",
    "log_type": "error_log",
    "lts_group_id": "c3dd5233-24a1-443c-6b40-310b3ad85382",
    "lts_stream_id": "9b476e31-b745-4e76-8d78-2081168651f7"
  } ]
}
```

Example Response

None

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.8.9 Querying Whether Show Original Log Is Enabled

Function

This API is used to query whether Show Original Log is enabled. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/instances/{instance_id}/slowlog/query

Table 4-723 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID.

Request Parameters

Table 4-724 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain the value, call the API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
Content-Type	Yes	String	Content type. Value: application/json
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Response Parameters

Status code: 200

Table 4-725 Response body parameter

Parameter	Type	Description
open_slow_log_switch	Boolean	Whether slow query logs are enabled.

Status code: 400

Table 4-726 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-727 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying whether Show Original Log is enabled

```
GET https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/  
61a4ea66210545909d74a05c27a7179ein07/slowlog/query
```

Example Response

Status code: 200

Success.

```
{  
  "open_slow_log_switch" : true  
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.8.10 Enabling or Disabling Show Original Log

Function

This API is used to enable or disable Show Original Log. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

POST /v3/{project_id}/instances/{instance_id}/slowlog/modify

Table 4-728 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID.

Request Parameters

Table 4-729 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain the value, call the API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
Content-Type	Yes	String	Content type. Value: application/json
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Table 4-730 Request body parameter

Parameter	Mandatory	Type	Description
open_slow_log_switch	Yes	Boolean	Whether slow query logs are enabled.

Response Parameters

Status code: 400

Table 4-731 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-732 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Enabling or disabling Show Original Log

```
POST https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/  
61a4ea66210545909d74a05c27a7179ein07/slowlog/modify  
  
{  
  "open_slow_log_switch" : true  
}
```

Example Response

None

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.8.11 Querying Slow Query Log Statistics

Function

This API is used to query slow query log statistics. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

```
POST /v3/{project_id}/instances/{instance_id}/slow-logs/statistics
```

Table 4-733 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-734 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Table 4-735 Request body parameters

Parameter	Mandatory	Type	Description
limit	No	Integer	Number of records (query results) displayed on each page. The number ranges from 1 to 100. The default value is 10 .
offset	No	Integer	Index offset. The default value is 0 , indicating that the query starts from the first piece of data.
node_id	Yes	String	Node ID.

Parameter	Mandatory	Type	Description
type	No	String	Statement type. If this parameter is left empty, all statement types are queried. Enumerated values: <ul style="list-style-type: none"> • INSERT • UPDATE • SELECT • DELETE • CREATE • ALL
database	No	String	Database name. It cannot contain special characters such as < > &.
start_time	Yes	String	Start time in the yyyy-mm-ddThh:mm:ssZ format. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, in the Beijing time zone, the offset is +0800 .
end_time	Yes	String	End time in the "yyyy-mm-ddThh:mm:ssZ" format. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, in the Beijing time zone, the offset is +0800 . Only slow query logs generated within the past month can be queried.
sort	No	String	Sorting field. <ul style="list-style-type: none"> • executeTime: indicates sorting slow query logs by average execution time in descending order. • If this parameter is left empty or set to other values, the slow query logs are sorted by executions in descending order.

Parameter	Mandatory	Type	Description
order	No	String	Sorting sequence. The default value is desc . Enumerated values: <ul style="list-style-type: none"> • desc • asc

Response Parameters

Status code: 200

Table 4-736 Response body parameters

Parameter	Type	Description
slow_log_list	Array of ShowSlowLogStatisticsItem objects	List of slow query log statistics.
total_count	Integer	Total records.

Table 4-737 ShowSlowLogStatisticsItem

Parameter	Type	Description
client_ip	String	IP address.
count	String	Number of executions.
database	String	Database that slow query logs belong to.
lock_time	String	Average lock wait time.
node_id	String	Node ID.
query_sample	String	Execution syntax.
rows_examined	Integer	Average number of scanned rows.
rows_sent	Integer	Average number of rows contained in a result.
time	String	Average execution duration.
type	String	Statement type.
users	String	Account.

Status code: 400

Table 4-738 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-739 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying slow query log statistics

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/6754902da1f447269c6979b0590102a5in07/slow-logs/statistics
```

```
{
  "limit" : 10,
  "offset" : 0,
  "node_id" : "4006312b96c541749d735c20e86dd169no07",
  "type" : null,
  "database" : null,
  "start_time" : "2024-08-16T14:37:00+0800",
  "end_time" : "2024-08-16T16:51:22+0800",
  "sort" : null,
  "order" : "desc"
}
```

Example Response

Status code: 200

Success.

```
{
  "slow_log_list" : [ {
    "node_id" : "4006312b96c541749d735c20e86dd169no07",
    "count" : "1 (100.00%)",
    "time" : "11.00014 s",
    "lock_time" : "0.00000 s",
    "rows_sent" : 1,
    "rows_examined" : 1,
    "database" : "",
    "users" : "root",
    "query_sample" : "select sleep(N);",
    "client_ip" : "localhost",
    "type" : "SELECT"
  }
]
```

```
    } ],  
    "total_count" : 1  
  }  
}
```

Example SDK Code

The example SDK code is as follows.

Java

Querying slow query log statistics

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class ShowSlowLogStatisticsSolution {  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
        String projectId = "{project_id}";  
  
        ICredential auth = new BasicCredentials()  
            .withProjectId(projectId)  
            .withAk(ak)  
            .withSk(sk);  
  
        GaussDBClient client = GaussDBClient.newBuilder()  
            .withCredential(auth)  
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))  
            .build();  
        ShowSlowLogStatisticsRequest request = new ShowSlowLogStatisticsRequest();  
        request.withInstanceId("{instance_id}");  
        ShowSlowLogStatisticsRequestBody body = new ShowSlowLogStatisticsRequestBody();  
        body.withOrder("desc");  
        body.withEndTime("2024-08-16T16:51:22+0800");  
        body.withStartTime("2024-08-16T14:37:00+0800");  
        body.withNodeId("4006312b96c541749d735c20e86dd169no07");  
        body.withOffset(0);  
        body.withLimit(10);  
        request.withBody(body);  
        try {  
            ShowSlowLogStatisticsResponse response = client.showSlowLogStatistics(request);  
            System.out.println(response.toString());  
        } catch (ConnectionException e) {  
            e.printStackTrace();  
        } catch (RequestTimeoutException e) {  
            e.printStackTrace();  
        } catch (ServiceResponseException e) {  
            e.printStackTrace();  
            System.out.println(e.getHttpStatusCode());  
            System.out.println(e.getRequestId());  
            System.out.println(e.getErrorCode());  
        }  
    }  
}
```

```
        System.out.println(e.getErrorMsg());
    }
}
}
```

Python

Querying slow query log statistics

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    # variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowSlowLogStatisticsRequest()
        request.instance_id = "{instance_id}"
        request.body = ShowSlowLogStatisticsRequestBody(
            order="desc",
            end_time="2024-08-16T16:51:22+0800",
            start_time="2024-08-16T14:37:00+0800",
            node_id="4006312b96c541749d735c20e86dd169no07",
            offset=0,
            limit=10
        )
        response = client.show_slow_log_statistics(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

Querying slow query log statistics

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
```



```
// The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
// In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
ak := os.Getenv("CLOUD_SDK_AK")
sk := os.Getenv("CLOUD_SDK_SK")
projectId := "{project_id}"

auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    WithProjectId(projectId).
    Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.ShowSlowLogStatisticsRequest{}
request.InstanceId = "{instance_id}"
orderShowSlowLogStatisticsRequestBody := "desc"
offsetShowSlowLogStatisticsRequestBody := int32(0)
limitShowSlowLogStatisticsRequestBody := int32(10)
request.Body = &model.ShowSlowLogStatisticsRequestBody{
    Order: &orderShowSlowLogStatisticsRequestBody,
    EndTime: "2024-08-16T16:51:22+0800",
    StartTime: "2024-08-16T14:37:00+0800",
    NodeId: "4006312b96c541749d735c20e86dd169no07",
    Offset: &offsetShowSlowLogStatisticsRequestBody,
    Limit: &limitShowSlowLogStatisticsRequestBody,
}
response, err := client.ShowSlowLogStatistics(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

More Programming Languages

For SDK code examples in more programming languages, visit [API Explorer](#) and click the **Sample Code** tab. Code examples can be automatically generated.

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.8.12 Obtaining Links for Downloading Slow Query Logs

Function

This API is used to obtain links for downloading slow query logs. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

POST /v3/{project_id}/instances/{instance_id}/{node_id}/slowlog-download

Table 4-740 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.
node_id	Yes	String	Node ID.

Request Parameters

Table 4-741 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Response Parameters

Status code: 200

Table 4-742 Response body parameters

Parameter	Type	Description
list	Array of DownloadSlowLogFileItem objects	Links for downloading slow query logs.
count	Integer	Number of records.

Table 4-743 DownloadSlowLogFileItem

Parameter	Type	Description
job_id	String	Task ID.
file_name	String	File name.
status	String	Status. Values: <ul style="list-style-type: none">• SUCCESS: The download link has been generated.• EXPORTING: The download link is being generated.• FAILED: The download link failed to be generated.
file_size	String	File size, in KB.
file_link	String	Download link. The link is valid for 5 minutes.
create_at	Long	Creation time.
updated_at	Long	Update time.

Status code: 400**Table 4-744** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-745 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Obtaining links for downloading slow query logs

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/6754902da1f447269c6979b0590102a5in07/941d21130b3c4899ad1a752a0945befdno07/slowlog-download
```

Example Response

Status code: 200

Success.

```
{
  "list": [ {
    "job_id": "73a5f4df-a111-4e09-b543-5ff3863eda71",
    "file_name":
    "62b83dfd385f4d96afa6c7afd36dad7b_gaussdbformysql_slowlog_download_20240816081247776",
    "status": "SUCCESS",
    "file_size": 0,
    "file_link": "https://obs.cn-southwest-244.ulanhqab.huawei.com:443/dbsbucket-0-cn-southwest-244-
    ea3ffcdb5cc4b5789a77884f9*****/
    62b83dfd385f4d96afa6c7afd36dad7b_gaussdbformysql_slowlog_download_20240816081247776?
    AWSAccessKeyId=*****&Expires=1723796280&response-cache-control=no-cache%2Cno-
    store&Signature=51RXPvQJg2RSolfqCHOqF5*****",
    "create_at": 1723795967769,
    "updated_at": 1723795980907
  } ],
  "count": 1
}
```

Example SDK Code

The example SDK code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class DownloadSlowLogFileSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
```

```
environment variables and decrypted during use to ensure security.
// In this example, AK and SK are stored in environment variables for authentication. Before running
this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
String ak = System.getenv("CLOUD_SDK_AK");
String sk = System.getenv("CLOUD_SDK_SK");
String projectId = "{project_id}";

ICredential auth = new BasicCredentials()
    .withProjectId(projectId)
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();

DownloadSlowLogFileRequest request = new DownloadSlowLogFileRequest();
request.withInstanceId("{instance_id}");
request.withNodeId("{node_id}");
try {
    DownloadSlowLogFileResponse response = client.downloadSlowLogFile(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
    example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = DownloadSlowLogFileRequest()
        request.instance_id = "{instance_id}"
        request.node_id = "{node_id}"
        response = client.download_slow_log_file(request)
        print(response)
```

```
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
    // variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DownloadSlowLogFileRequest{}
    request.InstanceId = "{instance_id}"
    request.NodeId = "{node_id}"
    response, err := client.DownloadSlowLogFile(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More Programming Languages

For SDK code examples in more programming languages, visit [API Explorer](#) and click the **Sample Code** tab. Code examples can be automatically generated.

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.9 Tag Management

4.9.1 Querying Resource Tags

Function

This API is used to query tags of a specified instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/instances/{instance_id}/tags

Table 4-746 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Table 4-747 Query parameters

Parameter	Mandatory	Type	Description
offset	No	Integer	Index offset. If offset is set to <i>N</i> , the resource query starts from the <i>N</i> +1 piece of data. The value is 0 by default, indicating that the query starts from the first piece of data. The value cannot be a negative number.
limit	No	Integer	Number of records to be queried. The default value is 100 . The value must be a positive integer. The minimum value is 1 and the maximum value is 100 .

Request Parameters

Table 4-748 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Response Parameters

Status code: 200

Table 4-749 Response body parameters

Parameter	Type	Description
total_count	Integer	Total number of records.
tags	Array of ResourceTagItem objects	Tag list.

Table 4-750 ResourceTagItem

Parameter	Type	Description
key	String	Tag key.
value	String	Tag value.

Status code: 400

Table 4-751 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500**Table 4-752** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying resource tags

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
61a4ea66210545909d74a05c27a7179ein07/tags?offset=0&limit=2
```

Example Response

Status code: 200

Success.

```
{  
  "total_count": 2,  
  "tags": [{  
    "key": "key1",  
    "value": "value1"  
  }, {  
    "key": "key2",  
    "value": "value2"  
  }]  
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.9.2 Querying Project Tags

Function

This API is used to query all tags of instances in a specified project. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/tags

Table 4-753 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .

Table 4-754 Query parameters

Parameter	Mandatory	Type	Description
offset	No	Integer	Index offset. If offset is set to <i>N</i> , the resource query starts from the <i>N</i> +1 piece of data. The value is 0 by default, indicating that the query starts from the first piece of data. The value cannot be a negative number.
limit	No	Integer	Number of records to be queried. The default value is 100 . The value must be a positive integer. The minimum value is 1 and the maximum value is 100 .

Request Parameters

Table 4-755 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Response Parameters

Status code: 200

Table 4-756 Response body parameters

Parameter	Type	Description
total_count	Integer	Total number of records.
tags	Array of ProjectTagItem objects	Tag list.

Table 4-757 ProjectTagItem

Parameter	Type	Description
key	String	Tag key.
values	Array of strings	Tag value.

Status code: 400

Table 4-758 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-759 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying project tags

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/tags?offset=0&limit=2
```

Example Response

Status code: 200

Success.

```
{
  "total_count" : 2,
  "tags" : [ {
    "key" : "key1",
    "values" : [ "value1", "value2" ]
  }, {
    "key" : "key2",
    "values" : [ "value3", "value4" ]
  } ]
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.9.3 Adding or Deleting Tags in Batches

Function

This API is used to add tags to or delete tags from a specified DB instance in batches. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

POST /v3/{project_id}/instances/{instance_id}/tags/action

Table 4-760 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-761 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Table 4-762 Request body parameters

Parameter	Mandatory	Type	Description
action	Yes	String	Action. Values: <ul style="list-style-type: none"> • create: adding tags • delete: deleting tags
tags	Yes	Array of TagItem objects	Tag list.

Table 4-763 TagItem

Parameter	Mandatory	Type	Description
key	Yes	String	Tag key. It contains a maximum of 36 Unicode characters and cannot be null, an empty string, or a space. Only digits, uppercase letters, lowercase letters, underscores (_), and hyphens (-) are allowed.
value	No	String	Tag value. It contains a maximum of 43 Unicode characters. It can be an empty string but cannot be a space. Only digits, uppercase letters, lowercase letters, underscores (_), periods (.), and hyphens (-) are allowed. <ul style="list-style-type: none"> • If action is set to create, this parameter is mandatory. • If action is set to delete and value is specified, tags are deleted by key and value. If value is not specified, tags are deleted by key.

Response Parameters

Status code: 400

Table 4-764 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-765 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

- Adding tags in batches

POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/61a4ea66210545909d74a05c27a7179ein07/tags/action

```
{
  "action": "create",
  "tags": [ {
    "key": "key1",
    "value": "value1"
  }, {
    "key": "key2",
    "value": "value2"
  } ]
}
```

- Deleting tags in batches

POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/61a4ea66210545909d74a05c27a7179ein07/tags/action

```
{
  "action": "delete",
  "tags": [ {
    "key": "key1"
  }, {
    "key": "key2",
    "value": "value2"
  } ]
}
```

Example Response

None

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.10 Database User Management

4.10.1 Creating a Database Account

Function

This API is used to create a database account for a TaurusDB instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

POST /v3/{project_id}/instances/{instance_id}/db-users

Table 4-766 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-767 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.

Parameter	Mandatory	Type	Description
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Table 4-768 Request body parameter

Parameter	Mandatory	Type	Description
users	Yes	Array of CreateDatabaseUserList objects	List of database users. The list contains up to 50 database users.

Table 4-769 CreateDatabaseUserList

Parameter	Mandatory	Type	Description
name	Yes	String	Database username. The value can contain 1 to 32 characters, including letters, digits, and underscores (_).
password	Yes	String	Password of the database user. It cannot be the same as the user name. The value cannot be empty and must consist of 8 to 32 characters and contain at least three types of the following: uppercase letters, lowercase letters, digits, and special characters ~!@#\$\$%^*_-=+?,()& You are advised to enter a strong password to improve security and prevent security risks such as brute force cracking.

Parameter	Mandatory	Type	Description
comment	No	String	Database remarks. The value can consist of up to 512 characters, and cannot contain the carriage return characters or the following special characters: !<"='>& This field is only suitable for instances 2.0.13.0 or later. To upgrade an instance to the latest version, see Upgrading the Kernel Version of a DB Instance .
hosts	No	Array of strings	Host IP address. The default value is %, indicating that all IP addresses are allowed to access your TaurusDB instance. If the IP address is set to 10.10.10.%, all IP addresses in the subnet 10.10.10.X are allowed to access your TaurusDB instance. You can add up to 50 IP addresses and separate them with commas (,), for example, 192.168.0.1,172.16.213.9 (no spaces before and after the comma).
databases	No	Array of CreateDatabaseList objects	List of the databases. The list contains up to 50 databases. When you create a database user, you can grant the permissions of databases in the list to the user. If there is no database in the list, you can invoke an API to grant database permissions to the database user.

Table 4-770 CreateDatabaseList

Parameter	Mandatory	Type	Description
name	Yes	String	Database name.

Parameter	Mandatory	Type	Description
readonly	Yes	Boolean	Whether the permission is read-only. <ul style="list-style-type: none"> • true: read-only • false: read/write

Response Parameters

Status code: 201

Table 4-771 Response body parameters

Parameter	Type	Description
job_id	String	ID of the task for creating a database account.

Status code: 400

Table 4-772 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-773 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Creating a database user with the read/write permission (The host IP address is 127.0.0.1.)

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/a23fb62bd61e4e9e9636fd2225f395bein07/db-users
{
  "users": [ {
    "name": "gaussdb_mysql_user1",
    "password": "Rds_1234",
```

```
"hosts" : [ "127.0.0.1" ],
"comment" : "database_user_comment",
"databases" : [ {
  "name" : "test",
  "readonly" : false
} ]
} ]
}
```

Example Response

Status code: 201

Success.

```
{
  "job_id" : "dff1d289-4d03-4942-8b9f-463ea07c000d"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.10.2 Querying Database Users

Function

This API is used to query database users of a TaurusDB instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/instances/{instance_id}/db-users

Table 4-774 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Table 4-775 Query parameters

Parameter	Mandatory	Type	Description
offset	No	Integer	Index offset. If offset is set to <i>N</i> , the resource query starts from the <i>N</i> +1 piece of data. The value is 0 by default, indicating that the query starts from the first piece of data. The value cannot be a negative number.
limit	No	Integer	Number of records to be queried. The default value is 100 . The value must be a positive integer. The minimum value is 1 and the maximum value is 100 .

Request Parameters

Table 4-776 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Response Parameters

Status code: 200

Table 4-777 Response body parameters

Parameter	Type	Description
users	Array of ListGaussMySqlDatabaseUser objects	List of database users.
total_count	Integer	Total number of database users of a DB instance.

Table 4-778 ListGaussMySqlDatabaseUser

Parameter	Type	Description
name	String	Database username.
host	String	Host IP address.
comment	String	Remarks of the database account.
databases	Array of ListGaussMySqlDatabase objects	List of databases.

Table 4-779 ListGaussMySqlDatabase

Parameter	Type	Description
name	String	Database name.
readonly	Boolean	Whether the permission is read-only. <ul style="list-style-type: none"> ● true: read-only ● false: read/write

Status code: 400

Table 4-780 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-781 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying database users

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/a23fb62bd61e4e9e9636fd2225f395bein07/db-users?offset=0&limit=100
```

Example Response

Status code: 200

Success.

```
{
  "users": [ {
    "name": "gaussdb_mysql_user1",
    "host": "127.0.0.1",
    "comment": "database_user_comment",
    "databases": [ {
      "name": "test",
      "readonly": false
    } ]
  } ],
  "total_count": 1
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.10.3 Deleting a Database User

Function

This API is used to delete a database user. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

```
DELETE /v3/{project_id}/instances/{instance_id}/db-users
```

Table 4-782 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-783 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Table 4-784 Request body parameter

Parameter	Mandatory	Type	Description
users	Yes	Array of ListDeleteDatabaseUserRequest objects	List of database users to be deleted. The list contains up to 50 database users.

Table 4-785 ListDeleteDatabaseUserRequest

Parameter	Mandatory	Type	Description
name	Yes	String	Database username.
host	Yes	String	Host IP address.

Response Parameters

Status code: 202

Table 4-786 Response body parameters

Parameter	Type	Description
job_id	String	ID of the task for deleting database users.

Status code: 400

Table 4-787 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-788 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Deleting the database user whose host IP address is 127.0.0.1

```
DELETE https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/
a23fb62bd61e4e9e9636fd2225f395bein07/db-users
{
  "users" : [ {
    "name" : "gaussdb_mysql_user1",
    "host" : "127.0.0.1"
  } ]
}
```

Example Response

Status code: 202

Success.

```
{
  "job_id" : "dff1d289-4d03-4942-8b9f-463ea07c000d"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.10.4 Modifying Remarks of a Database User

Function

This API is used to modify the remarks of a database user. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

PUT /v3/{project_id}/instances/{instance_id}/db-users/comment

Table 4-789 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-790 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Table 4-791 Request body parameters

Parameter	Mandatory	Type	Description
users	Yes	Array of UpdateDatabaseUserComment objects	List of database users that you want to change the remarks for. The list contains up to 50 database users.

Table 4-792 UpdateDatabaseUserComment

Parameter	Mandatory	Type	Description
name	Yes	String	Database username.
host	Yes	String	Host IP address.

Parameter	Mandatory	Type	Description
comment	Yes	String	Database user remarks. The value can consist of up to 512 characters, and cannot contain the carriage return characters or the following special characters: !<"='>& This field is only suitable for instances 2.0.13.0 or later. To upgrade an instance to the latest version, see Upgrading the Kernel Version of a DB Instance .

Response Parameters

Status code: 202

Table 4-793 Response body parameters

Parameter	Type	Description
job_id	String	ID of the task for changing the remarks of the database user.

Status code: 400

Table 4-794 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-795 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Modifying remarks of a database user

```
PUT https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/
a23fb62bd61e4e9e9636fd2225f395bein07/db-users/comment
{
  "users" : [ {
    "name" : "gaussdb_mysql_user1",
    "host" : "127.0.0.1",
    "comment" : "first_database_user"
  } ]
}
```

Example Response

Status code: 202

Success.

```
{
  "job_id" : "dff1d289-4d03-4942-8b9f-463ea07c000d"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.10.5 Changing Password of a Database User

Function

This API is used to change the password of a database user. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

PUT /v3/{project_id}/instances/{instance_id}/db-users/password

Table 4-796 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .

Parameter	Mandatory	Type	Description
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-797 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Table 4-798 Request body parameter

Parameter	Mandatory	Type	Description
users	Yes	Array of ResetDatabasePassword objects	List of database users that you want to change the passwords for. The list contains up to 50 database users.

Table 4-799 ResetDatabasePassword

Parameter	Mandatory	Type	Description
name	Yes	String	Database username.
host	Yes	String	Host IP address.

Parameter	Mandatory	Type	Description
password	Yes	String	<p>Password of the database user. The value can consist of 8 to 32 characters and contain at least three types of the following characters: uppercase letters, lowercase letters, digits, and special characters ~!@#%&^*_-=+?,()&</p> <p>You are advised to enter a strong password to improve security and prevent security risks such as brute force cracking.</p>

Response Parameters

Status code: 202

Table 4-800 Response body parameters

Parameter	Type	Description
job_id	String	ID of the task for changing the passwords of database users.

Status code: 400

Table 4-801 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-802 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Changing password of database user **gaussdb_mysql_user1**

```
PUT https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/
a23fb62bd61e4e9e9636fd2225f395bein07/db-users/password
{
  "users": [ {
    "name": "gaussdb_mysql_user1",
    "host": "127.0.0.1",
    "password": "Rds_1234"
  } ]
}
```

Example Response

Status code: 202

Success.

```
{
  "job_id": "dff1d289-4d03-4942-8b9f-463ea07c000d"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.10.6 Granting Permissions to a Database User

Function

This API is used to grant permissions to a database user. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

POST /v3/{project_id}/instances/{instance_id}/db-users/privilege

Table 4-803 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .

Parameter	Mandatory	Type	Description
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-804 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Table 4-805 Request body parameter

Parameter	Mandatory	Type	Description
users	Yes	Array of GrantDatabasePermission objects	List of database users. The list contains up to 50 database users.

Table 4-806 GrantDatabasePermission

Parameter	Mandatory	Type	Description
name	Yes	String	Database username.
host	Yes	String	Host IP address.

Parameter	Mandatory	Type	Description
databases	Yes	Array of DatabasePermission objects	List of databases. The list contains up to 50 databases.

Table 4-807 DatabasePermission

Parameter	Mandatory	Type	Description
name	Yes	String	Database name.
readonly	Yes	Boolean	Whether the permission is read-only. <ul style="list-style-type: none">• true: read-only• false: read/write

Response Parameters

Status code: 201

Table 4-808 Response body parameters

Parameter	Type	Description
job_id	String	ID of the task for authorizing the database permissions to a user.

Status code: 400

Table 4-809 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-810 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Granting the read/write permission to a database user

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/
a23fb62bd61e4e9e9636fd2225f395bein07/db-users/privilege
{
  "users": [ {
    "name": "gaussdb_mysql_user1",
    "host": "127.0.0.1",
    "databases": [ {
      "name": "test",
      "readonly": false
    } ]
  } ]
}
```

Example Response

Status code: 201

Success.

```
{
  "job_id": "dff1d289-4d03-4942-8b9f-463ea07c000d"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.10.7 Deleting Permissions of a Database User

Function

This API is used to delete permissions of a database user. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

DELETE /v3/{project_id}/instances/{instance_id}/db-users/privilege

Table 4-811 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-812 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Table 4-813 Request body parameter

Parameter	Mandatory	Type	Description
users	Yes	Array of DeleteDatabasePermission objects	List of database users. The list contains up to 50 database users.

Table 4-814 DeleteDatabasePermission

Parameter	Mandatory	Type	Description
name	Yes	String	Database username.
host	Yes	String	Host IP address.
databases	Yes	Array of strings	List of databases.

Response Parameters

Status code: 202

Table 4-815 Response body parameters

Parameter	Type	Description
job_id	String	ID of the task for deleting database permissions of database users.

Status code: 400

Table 4-816 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-817 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Deleting permissions of database user **gaussdb_mysql_user1**

```
DELETE https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/
a23fb62bd61e4e9e9636fd2225f395bein07/db-users/privilege
{
```

```
"users" : [ {  
  "name" : "gaussdb_mysql_user1",  
  "host" : "127.0.0.1",  
  "databases" : [ "test" ]  
} ]  
}
```

Example Response

Status code: 202

Success.

```
{  
  "job_id" : "dff1d289-4d03-4942-8b9f-463ea07c000d"  
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.11 Database Management

4.11.1 Querying Available Database Character Sets

Function

This API is used to query available database character sets of a TaurusDB instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/instances/{instance_id}/databases/charsets

Table 4-818 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-819 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Response Parameters

Status code: 200

Table 4-820 Response body parameters

Parameter	Type	Description
Charsets	Array of strings	List of database character sets.

Status code: 400

Table 4-821 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-822 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying available database character sets

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
a23fb62bd61e4e9e9636fd2225f395bein07/databases/charsets
```

Example Response

Status code: 200

Success.

```
{  
  "charsets": [ "utf8mb4", "gbk" ]  
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.11.2 Creating a Database

Function

This API is used to create a database for a TaurusDB instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

```
POST /v3/{project_id}/instances/{instance_id}/databases
```


Table 4-823 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-824 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Table 4-825 Request body parameter

Parameter	Mandatory	Type	Description
databases	Yes	Array of CreateGauss MySQLDatabase objects	Database information list. The list contains up to 50 databases.

Table 4-826 CreateGaussMySqlDatabase

Parameter	Mandatory	Type	Description
name	Yes	String	Database name. The name can contain 1 to 64 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed. The total number of hyphens (-) cannot exceed 10.
comment	No	String	Database remarks. The value can consist of up to 512 characters, and cannot contain the carriage return characters or the following special characters: !<"='>&
character_set	Yes	String	Database character set, for example, utf8mb4 or gbk .
users	No	Array of GaussMySqlDatabaseUser objects	List of database users. The list contains up to 50 database users. When you create a database, you can grant the database permissions to the users in the list. If there is no database user in the list, you cannot grant the database permissions to database users when creating a database. If you need to grant the database permissions to a database user later, call the API (Granting Permissions to a Database User).

Table 4-827 GaussMySqlDatabaseUser

Parameter	Mandatory	Type	Description
name	Yes	String	Database username.
host	Yes	String	Host IP address.
readonly	Yes	Boolean	Whether the permission is read-only. <ul style="list-style-type: none"> true: read-only false: read/write

Response Parameters

Status code: 201

Table 4-828 Response body parameters

Parameter	Type	Description
job_id	String	ID of the task for creating a database.

Status code: 400

Table 4-829 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-830 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Creating a database (with utf8mb4 as character set and read/write permission)

```
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/
a23fb62bd61e4e9e9636fd2225f395bein07/databases
{
  "databases": [ {
    "name": "test",
    "comment": "database_comment",
    "character_set": "utf8mb4",
    "users": [ {
      "name": "gaussdb_mysql_user1",
      "host": "127.0.0.1",
      "readonly": false
    } ]
  } ]
}
```

Example Response

Status code: 201

Success.

```
{
  "job_id" : "dff1d289-4d03-4942-8b9f-463ea07c000d"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.11.3 Modifying Database Remarks

Function

This API is used to modify database remarks of a TaurusDB instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

PUT /v3/{project_id}/instances/{instance_id}/databases/comment

Table 4-831 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-832 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Table 4-833 Request body parameters

Parameter	Mandatory	Type	Description
databases	Yes	Array of Table 4-834 objects	List of databases that you want to change the remarks for. The list contains up to 50 databases.

Table 4-834 UpdateDatabaseComment

Parameter	Mandatory	Type	Description
name	Yes	String	Database name.
comment	Yes	String	Database remarks. The value can consist of up to 512 characters, and cannot contain the carriage return characters or the following special characters: !<"='>&

Response Parameters

Status code: 202

Table 4-835 Response body parameters

Parameter	Type	Description
job_id	String	ID of the task for changing database remarks.

Status code: 400**Table 4-836** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500**Table 4-837** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Modifying database remarks

PUT https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/
a23fb62bd61e4e9e9636fd2225f395bein07/databases/comment

```
{
  "databases": [ {
    "name": "gaussdb_mysql_user1",
    "comment": "first_database"
  } ]
}
```

Example Response

Status code: 202

Success.

```
{
  "job_id": "dff1d289-4d03-4942-8b9f-463ea07c000d"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.11.4 Querying Databases

Function

This API is used to query databases of a TaurusDB instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/instances/{instance_id}/databases

Table 4-838 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Explanation: Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID . Constraints: None Value range: The value can contain 32 characters. Only letters and digits are allowed. Default value: None
instance_id	Yes	String	Explanation: Instance ID, which uniquely identifies an instance. Constraints: None Value range: The value can contain 36 characters with a suffix of in07 . Only letters and digits are allowed. Default value: None

Table 4-839 Query parameters

Parameter	Mandatory	Type	Description
offset	No	Integer	<p>Explanation: Index offset. The query starts from the next piece of data indexed by this parameter.</p> <p>Constraints: The value must be an integer and cannot be a negative number.</p> <p>Value range: ≥0</p> <p>Default value: 0</p>
limit	No	Integer	<p>Explanation: Number of records to be queried.</p> <p>Constraints: The value must be an integer and cannot be a negative number.</p> <p>Value range: 1-100</p> <p>Default value: 100</p>
name	No	String	<p>Explanation: Database name.</p> <p>Constraints: None</p> <p>Value range: None</p> <p>Default value: None</p>

Parameter	Mandatory	Type	Description
charset	No	String	Explanation: Character set used by the database. To obtain this value, see Querying Available Database Character Sets . Constraints: None Value range: None Default value: None

Request Parameters

Table 4-840 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	Explanation: User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value. Constraints: None Value range: None Default value: None

Parameter	Mandatory	Type	Description
X-Language	No	String	<p>Explanation: Request language type.</p> <p>Constraints: None</p> <p>Value range:</p> <ul style="list-style-type: none"> • en-us • zh-cn <p>Default value: en-us</p>

Response Parameters

Status code: 200

Table 4-841 Response body parameters

Parameter	Type	Description
databases	Array of ListGaussMySqlDatabaseInfo objects	<p>Explanation: Database list.</p>
total_count	Integer	<p>Explanation: Total number of databases.</p> <p>Value range: ≥0</p>

Table 4-842 ListGaussMySqlDatabaseInfo

Parameter	Type	Description
name	String	<p>Explanation: Database name.</p> <p>Value range: None</p>
charset	String	<p>Explanation: Character set used by the database.</p> <p>Value range: None</p>

Parameter	Type	Description
comment	String	Explanation: Database remarks. Value range: None
users	Array of GaussMySqlDatabaseInfo objects	Explanation: List of authorized database users.

Table 4-843 GaussMySqlDatabaseInfo

Parameter	Type	Description
name	String	Explanation: Database username. Value range: None
host	String	Explanation: Host IP address. Value range: None
readonly	Boolean	Explanation: Whether the permission is read-only. Value range: <ul style="list-style-type: none"> • true: read-only • false: read/write

Status code: 400

Table 4-844 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-845 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying databases

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/a23fb62bd61e4e9e9636fd2225f395bein07/databases?offset=0&limit=100&charset=utf8mb4&name=test
```

Example Response

Status code: 200

Success.

```
{
  "databases": [ {
    "name": "test",
    "charset": "utf8mb4",
    "comment": "database_comment",
    "users": [ {
      "name": "gaussdb-mysql-instance1",
      "host": "127.0.0.1",
      "readonly": false
    } ]
  } ],
  "total_count": 1
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.11.5 Deleting a Database

Function

This API is used to delete a database from a TaurusDB instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

```
DELETE /v3/{project_id}/instances/{instance_id}/databases
```

Table 4-846 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-847 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Table 4-848 Request body parameter

Parameter	Mandatory	Type	Description
databases	Yes	Array of strings	List of databases to be deleted. The list contains up to 50 databases.

Response Parameters

Status code: 202

Table 4-849 Response body parameters

Parameter	Type	Description
job_id	String	ID of the task for deleting databases.

Status code: 400

Table 4-850 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-851 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Deleting databases

```
DELETE https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/
a23fb62bd61e4e9e9636fd2225f395bein07/databases
{
  "databases": [ "test" ]
}
```

Example Response

Status code: 202

Success.

```
{
  "job_id": "dff1d289-4d03-4942-8b9f-463ea07c000d"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.12 SQL Statement Concurrency Control

4.12.1 Enabling or Disabling SQL Statement Concurrency Control

Function

This API is used to enable or disable SQL Statement Concurrency Control. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

POST /v3/{project_id}/instances/{instance_id}/sql-filter/switch

Table 4-852 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-853 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.

Parameter	Mandatory	Type	Description
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Table 4-854 Request body parameter

Parameter	Mandatory	Type	Description
switch_status	Yes	String	Whether SQL Statement Concurrency Control is enabled. Values: <ul style="list-style-type: none"> • ON: enabled • OFF: disabled

Response Parameters

Status code: 200

Table 4-855 Response body parameter

Parameter	Type	Description
job_id	String	ID of the task for enabling or disabling SQL Statement Concurrency Control.

Status code: 400

Table 4-856 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-857 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

- **Enabling SQL Statement Concurrency Control**
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instance/af315b8e6aaa41799bd9a31f2de15abcin07/sql-filter/switch
{
 "switch_status": "ON"
}
- **Disabling SQL Statement Concurrency Control**
POST https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instance/af315b8e6aaa41799bd9a31f2de15abcin07/sql-filter/switch
{
 "switch_status": "OFF"
}

Example Response

Status code: 200

Success.

```
{  
  "job_id": "aef6a470-fb63-4d5b-b644-12ead7e019b3"  
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.12.2 Querying Whether SQL Statement Concurrency Control Is Enabled

Function

This API is used to query whether SQL Statement Concurrency Control is enabled. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/instances/{instance_id}/sql-filter/switch

Table 4-858 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-859 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Response Parameters

Status code: 200

Table 4-860 Response body parameter

Parameter	Type	Description
switch_status	String	Whether SQL Statement Concurrency Control is enabled. Values: <ul style="list-style-type: none"> • ON: enabled • OFF: disabled

Status code: 400**Table 4-861** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500**Table 4-862** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying whether SQL Statement Concurrency Control is enabled

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instance/af315b8e6aaa41799bd9a31f2de15abcin07/sql-filter/switch
```

Example Response**Status code: 200**

Success.

```
{  
  "switch_status": "ON"  
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.12.3 Configuring Concurrency Control Rules of SQL Statements

Function

This API is used to configure concurrency control rules of SQL statements. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

PUT /v3/{project_id}/instances/{instance_id}/sql-filter/rules

Table 4-863 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-864 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Table 4-865 Request body parameter

Parameter	Mandatory	Type	Description
sql_filter_rules	Yes	Array of NodeSqlFilterRuleInfo objects	Concurrency control rules of SQL statements for nodes.

Table 4-866 NodeSqlFilterRuleInfo

Parameter	Mandatory	Type	Description
node_id	Yes	String	Node ID.
rules	Yes	Array of NodeSqlFilterRule objects	Concurrency control rules of SQL statements. The sql_type value must be unique.

Table 4-867 NodeSqlFilterRule

Parameter	Mandatory	Type	Description
sql_type	Yes	String	SQL statement type. Values: <ul style="list-style-type: none"> • SELECT • UPDATE • DELETE
patterns	Yes	Array of NodeSqlFilterRulePattern objects	Concurrency control rules of SQL statements.

Table 4-868 NodeSqlFilterRulePattern

Parameter	Mandatory	Type	Description
pattern	Yes	String	A concurrency control rule of SQL statements. A rule can consist of up to 128 keywords. The keywords are separated by tildes (~), for example, select~from~t1 . The rule cannot contain backslashes (\), commas (,), or double tildes (~~). It cannot end with tildes (~).

Parameter	Mandatory	Type	Description
max_concurrency	Yes	Integer	Maximum number of concurrent SQL statements. Value: a non-negative integer.

Response Parameters

Status code: 200

Table 4-869 Response body parameter

Parameter	Type	Description
job_id	String	ID of the task for configuring concurrency control rules of SQL statements.

Status code: 400

Table 4-870 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-871 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Configuring concurrency control rules of SQL statements (SQL statement types include SELECT, UPDATE, and DELETE.)

```
PUT https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instance/af315b8e6aaa41799bd9a31f2de15abcin07/sql-filter/rules
{
  "sql_filter_rules": [ {
    "node_id": "c01a5645eb2c4fb6a9373542f5366e50no07",
    "rules": [ {
```

```
"sql_type" : "SELECT",
"patterns" : [ {
  "pattern" : "select~from~t1",
  "max_concurrency" : 0
}, {
  "pattern" : "select~from~t3~where~id",
  "max_concurrency" : 10
} ]
}, {
  "sql_type" : "UPDATE",
  "patterns" : [ {
    "pattern" : "update~t3~where~id",
    "max_concurrency" : 10
  } ]
} ]
}, {
  "node_id" : "b234a5645eb2c4ji3b9372342f5362397no07",
  "rules" : [ {
    "sql_type" : "SELECT",
    "patterns" : [ {
      "pattern" : "select~from~t3~where~id",
      "max_concurrency" : 10
    } ]
  }, {
    "sql_type" : "DELETE",
    "patterns" : [ {
      "pattern" : "delete~t3~where~id",
      "max_concurrency" : 10
    } ]
  } ]
} ]
}
```

Example Response

Status code: 200

Success.

```
{
  "job_id" : "aef6a470-fb63-4d5b-b644-12ead7e019b3"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.12.4 Querying Concurrency Control Rules of SQL Statements

Function

This API is used to query concurrency control rules of SQL statements. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/instances/{instance_id}/sql-filter/rules

Table 4-872 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Table 4-873 Query parameters

Parameter	Mandatory	Type	Description
node_id	Yes	String	Node ID.
sql_type	No	String	SQL statement type. The value is case-insensitive. If this parameter is not specified, concurrency control rules of all types of statements are queried. Values: <ul style="list-style-type: none">• SELECT• UPDATE• DELETE

Request Parameters

Table 4-874 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.

Parameter	Mandatory	Type	Description
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Response Parameters

Status code: 200

Table 4-875 Response body parameters

Parameter	Type	Description
node_id	String	Node ID.
sql_filter_rules	Array of SqlFilterRule objects	Concurrency control rules of SQL statements.

Table 4-876 SqlFilterRule

Parameter	Type	Description
sql_type	String	SQL statement type. Values: <ul style="list-style-type: none">• SELECT• UPDATE• DELETE
patterns	Array of SqlFilterRulePattern objects	Concurrency control rules of SQL statements.

Table 4-877 SqlFilterRulePattern

Parameter	Type	Description
pattern	String	A concurrency control rule of SQL statements.
max_concurrency	Integer	Maximum number of concurrent SQL statements.

Status code: 400

Table 4-878 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-879 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying concurrency control rules of SQL statements

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instance/af315b8e6aaa41799bd9a31f2de15abcin07/sql-filter/rules?node_id=c01a5645eb2c4fb6a9373542f5366e50no07
```

Example Response

Status code: 200

Success.

```
{
  "node_id": "c01a5645eb2c4fb6a9373542f5366e50no07",
  "sql_filter_rules": [ {
    "sql_type": "SELECT",
    "patterns": [ {
      "pattern": "select~from~t1",
      "max_concurrency": 0
    }, {
      "pattern": "select~from~t2~where~id",
      "max_concurrency": 10
    } ]
  }, {
    "sql_type": "UDPATE",
    "patterns": [ {
      "pattern": "update~t1",
      "max_concurrency": 0
    }, {
      "pattern": "update~t2~where~id",
      "max_concurrency": 10
    } ]
  }, {
    "sql_type": "DELETE",
    "patterns": [ {
      "pattern": "delete~from",
```

```
"max_concurrency" : 0
  } ]
} ]
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.12.5 Deleting Concurrency Control Rules of SQL Statements

Function

This API is used to delete concurrency control rules of SQL statements. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

DELETE /v3/{project_id}/instances/{instance_id}/sql-filter/rules

Table 4-880 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-881 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Table 4-882 Request body parameter

Parameter	Mandatory	Type	Description
sql_filter_rules	Yes	Array of DeleteNodeSqlFilterRuleInfo objects	Concurrency control rules of SQL statements for nodes.

Table 4-883 DeleteNodeSqlFilterRuleInfo

Parameter	Mandatory	Type	Description
node_id	Yes	String	Node ID.
rules	Yes	Array of DeleteNodeSqlFilterRuleInfo objects	Concurrency control rules of SQL statements.

Table 4-884 DeleteNodeSqlFilterRule

Parameter	Mandatory	Type	Description
sql_type	Yes	String	SQL statement type. Values: <ul style="list-style-type: none"> • SELECT • UPDATE • DELETE
patterns	Yes	Array of strings	Concurrency control rules of SQL statements.

Response Parameters

Status code: 200

Table 4-885 Response body parameter

Parameter	Type	Description
job_id	String	ID of the task for deleting concurrency control rules of SQL statements.

Status code: 400

Table 4-886 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-887 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Deleting concurrency control rules of SQL statements (SQL statement types include SELECT, UPDATE, and DELETE.)

```
DELETE https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instance/af315b8e6aaa41799bd9a31f2de15abcin07/sql-filter/rules
{
  "sql_filter_rules": [ {
    "node_id": "c01a5645eb2c4fb6a9373542f5366e50no07",
    "rules": [ {
      "sql_type": "SELECT",
      "patterns": [ "select~from~t1", "select~from~t2" ]
    }, {
      "sql_type": "UPDATE",
      "patterns": [ "udpate~t3~where~id" ]
    }
  ], {
    "node_id": "b234a5645eb2c4ji3b9372342f5362397no07",
    "rules": [ {
      "sql_type": "SELECT",
      "patterns": [ "select~from~t1", "select~from~t2" ]
    }, {
      "sql_type": "DELETE",
      "patterns": [ "delete~t3~where~id" ]
    }
  ]
}
}
```

Example Response

Status code: 200

Success.

```
{
  "job_id": "aef6a470-fb63-4d5b-b644-12ead7e019b3"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.13 Task Center

4.13.1 Obtaining Information About a Task with a Specified ID

Function

This API is used to obtain task information from the task center. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

Constraints

- This API is used to query asynchronous tasks of the last one month in the task center.
- After a job is generated, it takes several seconds to query the job ID.

URI

GET /v3/{project_id}/jobs

Table 4-888 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	<p>Explanation: Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID.</p> <p>Constraints: None</p> <p>Value range: The value can contain 32 characters. Only letters and digits are allowed.</p> <p>Default value: None</p>

Table 4-889 Query parameters

Parameter	Mandatory	Type	Description
id	Yes	String	<p>Explanation: Task ID. To obtain this value, see Obtaining Instant Tasks and Obtaining Scheduled Tasks.</p> <p>Constraints: None</p> <p>Value range: None</p> <p>Default value: None</p>

Request Parameters

Table 4-890 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	<p>Explanation: User token. It can be obtained by calling the IAM API used to obtain a user token. The value of X-Subject-Token in the response header is the token value.</p> <p>Constraints: None</p> <p>Value range: None</p> <p>Default value: None</p>
X-Language	No	String	<p>Explanation: Request language type.</p> <p>Constraints: None</p> <p>Value range:</p> <ul style="list-style-type: none"> en-us zh-cn <p>Default value: en-us</p>

Response Parameters

Status code: 200

Table 4-891 Response body parameters

Parameter	Type	Description
job	GetJobInfoDetail object	<p>Explanation: Task information.</p>

Table 4-892 GetJobInfoDetail

Parameter	Type	Description
id	String	<p>Explanation: Task ID.</p> <p>Value range: The value is the same as that of the input parameter.</p>
name	String	<p>Explanation: Task name.</p> <p>Value range: None</p>
status	String	<p>Explanation: Task execution status.</p> <p>Value range:</p> <ul style="list-style-type: none"> ● Pending: The task is delayed and is not executed. ● Running: The task is being executed. ● Completed: The task has been successfully executed. ● Failed: The task failed to be executed.
created	String	<p>Explanation: Creation time. The format is yyyy-mm-ddThh:mm:ssZ. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, if the time zone offset is one hour, the value of Z is +0100.</p> <p>Value range: None</p>
ended	String	<p>Explanation: End time in the "yyyy-mm-ddThh:mm:ssZ" format. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, if the time zone offset is one hour, the value of Z is +0100.</p> <p>Value range: None</p>

Parameter	Type	Description
process	String	Explanation: Task execution progress. Value range: The execution progress (such as 60%) is displayed only when the task is being executed. Otherwise, "" is returned.
instance	GetJobInstanceInfoDetail object	Explanation: Instance information of the task with the specified ID.
entities	Object	Explanation: Displayed information varies depending on tasks.
fail_reason	String	Explanation: Task failure information. Value range: None

Table 4-893 GetJobInstanceInfoDetail

Parameter	Type	Description
id	String	Explanation: Instance ID, which uniquely identifies an instance. Value range: The value can contain 36 characters with a suffix of in07 . Only letters and digits are allowed.
name	String	Explanation: Instance name. Value range: The name must start with a letter and consist of 4 to 64 characters. Only letters (case-sensitive), digits, hyphens (-), and underscores (_) are allowed.

Status code: 400

Table 4-894 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-895 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Obtaining information about a task with a specified ID

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/jobs?id=a9767ede-fe0f-4888-9003-e843a4c90514
```

Example Response

Status code: 200

NOTE

In the response example, some tasks in the task center are used as examples.

Success.

```
{
  "job": {
    "id": "31b8ae23-c687-4d80-b7b4-42a66c9bb886",
    "name": "CreateGaussDBforMySQLInstance",
    "status": "Completed",
    "created": "2018-08-06T10:41:14+0800",
    "ended": "2018-08-06T16:41:14+0000",
    "process": "",
    "instance": {
      "id": "a48e43ff268f4c0e879652d65e63d0fbin07",
      "name": "DO-NOT-TOUCH-mgr2-mysql-single"
    }
  },
  "entities": {
    "instance": {
      "endpoint": "192.168.1.203:3306",
      "type": "Cluster",
      "datastore": {
        "type": "gaussdb-mysql",
        "version": "8.0"
      }
    }
  },
  "resource_ids": [ "a48e43ff268f4c0e879652d65e63d0fbin07.vm",
    "a48e43ff268f4c0e879652d65e63d0fbin07.volume" ]
}
```

```
}  
}  
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.13.2 Obtaining Instant Tasks

Function

This API is used to obtain the instant tasks. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/immediate-jobs

Table 4-896 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .

Table 4-897 Query parameters

Parameter	Mandatory	Type	Description
status	No	String	Task execution status. Values: <ul style="list-style-type: none">• Running: The task is being executed.• Completed: The task is successfully executed.• Failed: The task failed to be executed.• Pending: The task is not executed.

Parameter	Mandatory	Type	Description
job_name	No	String	<p>Task name.</p> <ul style="list-style-type: none"> • CreateGaussDBforMySQL-Instance: Creating a DB instance • RestoreGaussDBforMySQLNewInstance: Restoring data to a new DB instance • AddGaussDBforMySQLNodes: Adding a node • DeleteGaussDBforMySQL-Node: Deleting a node • RebootGaussDBforMySQL-Instance: Rebooting a DB instance • ModifyGaussDBforMySQL-Port: Changing a database port • ModifyGaussDBforMySQL-SecurityGroup: Changing a security group • ResizeGaussDBforMySQL-Flavor: Changing instance specifications • SwitchoverGaussDBforMySQLMasterNode: Promoting a read replica to the primary node • GaussDBforMySQLBindEIP: Binding an EIP • GaussDBforMySQLUnbindEIP: Unbinding an EIP • RenameGaussDBforMySQL-Instance: Changing a DB instance name • DeleteGaussDBforMySQL-Instance: Deleting a DB instance • UpgradeGaussDBforMySQLDatabaseVersion: Upgrading version • EnlargeGaussDBforMySQLProxy: Adding nodes for a proxy instance

Parameter	Mandatory	Type	Description
			<ul style="list-style-type: none"> • OpenGaussDBforMySQL-Proxy: Creating a proxy instance • CloseGaussDBforMySQL-Proxy: Deleting a proxy instance • GaussdbforMySQLModify-ProxyIp: Changing the IP address of a proxy instance • ScaleGaussDBforMySQL-Proxy: Changing the node specifications of a proxy instance • GaussDBforMySQLModifyInstanceMetricExtend: Enabling or disabling Monitoring by Seconds • GaussDBforMySQLModifyInstanceDataVip: Changing the private IP address • GaussDBforMySQLSwitchSSL: Enabling or disabling SSL • GaussDBforMySQLModify-ProxyConsist: Changing the proxy consistency • GaussDBforMySQLModify-ProxyWeight: Changing the read weights of nodes
job_id	No	String	Task ID.
offset	No	String	Index offset. The query starts from the first piece of data. The default value is 1 . The value must be a number and cannot be a negative number.
limit	No	String	Number of records to be queried. Value: 10 (default value), 20 , or 50 .

Parameter	Mandatory	Type	Description
start_time	No	String	Start time in the "yyyy-mm-ddThh:mm:ssZ" format. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, if the time zone offset is one hour, the value of Z is +0100 .
end_time	No	String	End time in the "yyyy-mm-ddThh:mm:ssZ" format. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, if the time zone offset is one hour, the value of Z is +0100 .

Request Parameters

Table 4-898 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Response Parameters

Status code: 200

Table 4-899 Response body parameters

Parameter	Type	Description
jobs	Array of TaskDetailInfo objects	Task details.
total_count	Integer	Total number of tasks.

Table 4-900 TaskDetailInfo

Parameter	Type	Description
instance_id	String	Instance ID, which is compliant with the UUID format.
instance_name	String	Instance name.
instance_status	String	Instance status. Values: <ul style="list-style-type: none">● createfail: The DB instance failed to be created.● creating: The DB instance is being created.● normal: The DB instance is normal.● abnormal: The DB instance is abnormal.● deleted: The DB instance has been deleted.
job_id	String	Task ID.
order_id	String	Order ID.

Parameter	Type	Description
job_name	String	<p>Task name.</p> <p>Values:</p> <ul style="list-style-type: none"> ● CreateGaussDBforMySQLInstance: Creating a DB instance ● RestoreGaussDBforMySQLNewInstance: Restoring data to a new DB instance ● AddGaussDBforMySQLNodes: Adding a node ● DeleteGaussDBforMySQLNode: Deleting a node ● RebootGaussDBforMySQLInstance: Rebooting a DB instance ● ModifyGaussDBforMySQLPort: Changing a database port ● ModifyGaussDBforMySQLSecurityGroup: Changing a security group ● ResizeGaussDBforMySQLFlavor: Changing instance specifications ● SwitchoverGaussDBforMySQLMaster-Node: Promoting a read replica to the primary node ● GaussDBforMySQLBindEIP: Binding an EIP ● GaussDBforMySQLUnbindEIP: Unbinding an EIP ● RenameGaussDBforMySQLInstance: Changing a DB instance name ● DeleteGaussDBforMySQLInstance: Deleting a DB instance ● UpgradeGaussDBforMySQLDatabaseVersion: Upgrading version ● EnlargeGaussDBforMySQLProxy: Adding nodes for a proxy instance ● OpenGaussDBforMySQLProxy: Creating a proxy instance ● CloseGaussDBforMySQLProxy: Deleting a proxy instance ● GaussdbforMySQLModifyProxyIp: Changing the IP address of a proxy instance ● ScaleGaussDBforMySQLProxy: Changing the node specifications of a proxy instance ● GaussDBforMySQLModifyInstanceMetricExtend: Enabling or disabling Monitoring by Seconds

Parameter	Type	Description
		<ul style="list-style-type: none"> • GaussDBforMySQLModifyInstanceData-Vip: Changing the private IP address • GaussDBforMySQLSwitchSSL: Enabling or disabling SSL • GaussDBforMySQLModifyProxyConsist: Changing the proxy consistency • GaussDBforMySQLModifyProxyWeight: Changing the read weights of nodes
status	String	Task execution status. Values: <ul style="list-style-type: none"> • Running: The task is being executed. • Completed: The task is successfully executed. • Failed: The task failed to be executed. • Pending: The task is delayed and is not executed.
process	String	Task progress.
created_time	String	Task creation time in the "yyyy-mm-ddThh:mm:ssZ" format. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, if the time zone offset is one hour, the value of Z is +0100 .
ended_time	String	Task end time in the "yyyy-mm-ddThh:mm:ssZ" format. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, if the time zone offset is one hour, the value of Z is +0100 .
fail_reason	String	Task failure cause.

Status code: 400

Table 4-901 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-902 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Obtaining the instant tasks

```
GET https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/immediate-jobs
```

Example Response

Status code: 200

Success.

```
{
  "jobs": [ {
    "instance_id": "ede953923f06448d9be8686ef0c1378ein07",
    "instance_name": "gauss-1234",
    "instance_status": "deleted",
    "job_id": "7155730b-a60b-4dc0-9f89-3f55897f29d6",
    "order_id": "",
    "job_name": "CloseGaussDBforMySQLProxy",
    "status": "Completed",
    "process": "",
    "created_time": "2018-08-06T10:41:14+0000",
    "ended_time": "2018-08-06T12:41:14+0000",
    "fail_reason": "Single task exception."
  } ],
  "total_count": 1
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.13.3 Obtaining Scheduled Tasks

Function

This API is used to obtain the scheduled tasks. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

```
GET /v3/{project_id}/scheduled-jobs
```

Table 4-903 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .

Table 4-904 Query parameters

Parameter	Mandatory	Type	Description
offset	No	String	Index offset. The query starts from the first piece of data. The default value is 0 . The value must be a number and cannot be a negative number.
limit	No	String	Number of records to be queried. The default value is 10 .
status	No	String	Task execution status. Values: <ul style="list-style-type: none"> • Running: The task is being executed. • Completed: The task is successfully executed. • Failed: The task failed to be executed. • Pending: The task is not executed.
start_time	No	String	Start time in the "yyyy-mm-ddThh:mm:ssZ" format. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, if the time zone offset is one hour, the value of Z is +0100 .

Parameter	Mandatory	Type	Description
end_time	No	String	End time in the "yyyy-mm-ddThh:mm:ssZ" format. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, if the time zone offset is one hour, the value of Z is +0100 .
job_id	No	String	Task ID.
job_name	No	String	Task scheduling type.

Request Parameters

Table 4-905 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Response Parameters

Status code: 200

Table 4-906 Response body parameters

Parameter	Type	Description
schedules	Array of ScheduleTask objects	Task details.

Parameter	Type	Description
total_count	Integer	Total number of records.

Table 4-907 ScheduleTask

Parameter	Type	Description
job_id	String	Task ID.
instance_id	String	Instance ID, which is compliant with the UUID format.
instance_name	String	Instance name.
instance_status	String	Instance status. Values: <ul style="list-style-type: none">● createfail: The DB instance failed to be created.● creating: The DB instance is being created.● normal: The DB instance is normal.● abnormal: The DB instance is abnormal.● deleted: The DB instance has been deleted.
project_id	String	Project ID of a tenant in a region.

Parameter	Type	Description
job_name	String	<p>Task name.</p> <p>Values:</p> <ul style="list-style-type: none"> ● CreateGaussDBforMySQLInstance: Creating a DB instance ● RestoreGaussDBforMySQLNewInstance: Restoring data to a new DB instance ● AddGaussDBforMySQLNodes: Adding a node ● DeleteGaussDBforMySQLNode: Deleting a node ● RebootGaussDBforMySQLInstance: Rebooting a DB instance ● ModifyGaussDBforMySQLPort: Changing a database port ● ModifyGaussDBforMySQLSecurityGroup: Changing a security group ● ResizeGaussDBforMySQLFlavor: Changing instance specifications ● SwitchoverGaussDBforMySQLMaster-Node: Promoting a read replica to the primary node ● GaussDBforMySQLBindEIP: Binding an EIP ● GaussDBforMySQLUnbindEIP: Unbinding an EIP ● RenameGaussDBforMySQLInstance: Changing a DB instance name ● DeleteGaussDBforMySQLInstance: Deleting a DB instance ● UpgradeGaussDBforMySQLDatabaseVersion: Upgrading version ● EnlargeGaussDBforMySQLProxy: Adding nodes for a proxy instance ● OpenGaussDBforMySQLProxy: Creating a proxy instance ● CloseGaussDBforMySQLProxy: Deleting a proxy instance ● GaussdbforMySQLModifyProxyIp: Changing the IP address of a proxy instance ● ScaleGaussDBforMySQLProxy: Changing the node specifications of a proxy instance ● GaussDBforMySQLModifyInstanceMetricExtend: Enabling or disabling Monitoring by Seconds

Parameter	Type	Description
		<ul style="list-style-type: none"> • GaussDBforMySQLModifyInstanceData-Vip: Changing the private IP address • GaussDBforMySQLSwitchSSL: Enabling or disabling SSL • GaussDBforMySQLModifyProxyConsist: Changing the proxy consistency • GaussDBforMySQLModifyProxyWeight: Changing the read weights of nodes
create_time	String	Task creation time in the "yyyy-mm-ddThh:mm:ssZ" format. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, if the time zone offset is one hour, the value of Z is +0100 .
start_time	String	Task start time in the "yyyy-mm-ddThh:mm:ssZ" format. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, if the time zone offset is one hour, the value of Z is +0100 .
end_time	String	Task end time in the "yyyy-mm-ddThh:mm:ssZ" format. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, if the time zone offset is one hour, the value of Z is +0100 .
job_status	String	Task execution status. Values: <ul style="list-style-type: none"> • Pending: The task is delayed and is not executed. • Running: The task is being executed. • Completed: The task is successfully executed. • Failed: The task failed to be executed.
datastore_type	String	Database type.
target_config	Object	Instance configuration information, such as specifications.

Status code: 400

Table 4-908 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500**Table 4-909** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Obtaining scheduled tasks

GET https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/scheduled-jobs?offset=1&limit=10

Example Response

Status code: 200

Success.

```
{
  "schedules": [ {
    "job_id": "56d3c1138dcf4f1da73b0170700c78d0",
    "instance_id": "79bc540dd4d6432784894a981dfacfcin07",
    "instance_name": "gauss-f821",
    "instance_status": "BUILD",
    "project_id": "053f533ead80d5102f0cc012e8d468a4",
    "job_name": "UpgradeGaussDBforMySQLDatabaseVersion",
    "create_time": "2018-08-06T10:41:14+0000",
    "start_time": "2018-08-06T10:41:14+0000",
    "end_time": "2018-08-06T10:41:14+0000",
    "job_status": "Completed",
    "datastore_type": "gaussdb-mysql",
    "target_config": {
      "flavor": "gaussdb.mysql.xlarge.arm.4",
      "mem": "16",
      "cpu": "4"
    }
  } ],
  "total_count": 1
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.13.4 Canceling a Scheduled Task

Function

This API is used to cancel a scheduled task. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

DELETE /v3/{project_id}/scheduled-jobs

Table 4-910 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .

Request Parameters

Table 4-911 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Table 4-912 Request body parameter

Parameter	Mandatory	Type	Description
job_ids	Yes	Array of strings	Task ID.

Response Parameters

Status code: 200

Table 4-913 Response body parameters

Parameter	Type	Description
job_ids	Array of strings	Task ID for canceling a scheduled task.

Status code: 400

Table 4-914 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-915 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Canceling a scheduled task

```
DELETE https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/scheduled-jobs
{
  "job_ids" : [ "56d3c1138dcf4f1da73b0170700c78d0" ]
}
```

Example Response

Status code: 200

Success.

```
{  
  "job_ids" : [ "56d3c1138dcf4f1da73b0170700c78d0" ]  
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.13.5 Deleting a Task Record

Function

This API is used to delete the record of a specific task. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

DELETE /v3/{project_id}/jobs/{job_id}

Table 4-916 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
job_id	Yes	String	Task ID.

Request Parameters

Table 4-917 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Response Parameters

Status code: 400

Table 4-918 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-919 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Deleting a specified task record

```
DELETE https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/jobs/6b00c41d-d54f-4bcb-80da-566ccedc2b5d
```

Example Response

Status code: 200

Success.

```
{}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.13.6 Deleting a Scheduled Task Record

Function

This API is used to delete a scheduled task record. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

DELETE /v3/{project_id}/instance/{instance_id}/scheduled-jobs

Table 4-920 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-921 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Table 4-922 Request body parameter

Parameter	Mandatory	Type	Description
job_id	Yes	String	Task ID.

Response Parameters

Status code: 200

Table 4-923 Response body parameters

Parameter	Type	Description
result	Boolean	Returned result.

Status code: 400

Table 4-924 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-925 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Deleting a scheduled task record

```
DELETE https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instance/  
34cbc6c13e074761a0f893e9f30e6edfin07/scheduled-jobs
```

```
{  
  "job_id" : "54c219a29a5f477ba69e36d0116d05d7"  
}
```

Example Response

Status code: 200

Success.

```
{  
  "result" : true  
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.14 Intelligent Diagnosis

4.14.1 Querying Abnormal Instances by Each Metric

Function

This API is used to query abnormal instances by each metric. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/instances/diagnosis-instance-count

Table 4-926 URI parameter

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .

Request Parameters

Table 4-927 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Response Parameters

Status code: 200

Table 4-928 Response body parameter

Parameter	Type	Description
diagnosis_info	Array of DiagnosisInfo objects	Diagnosis information list.

Table 4-929 DiagnosisInfo

Parameter	Type	Description
metric_name	String	Metric name.
count	Integer	Number of instances.

Status code: 400

Table 4-930 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-931 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying the number of abnormal instances by each metric based on **project_id**.

```
GET https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/diagnosis-instance-count
```

Example Response

Status code: 200

Success.

```
{
  "diagnosis_info" : [ {
    "metric_name" : "high_pressure",
    "count" : 8
  }, {
    "metric_name" : "insufficient_capacity",
    "count" : 0
  }, {
    "metric_name" : "slow_sql_frequency",
    "count" : 0
  }, {
    "metric_name" : "mem_overrun",
    "count" : 0
  }, {

```

```
"metric_name" : "connections_exceed",  
"count" : 0  
}]  
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.14.2 Querying Abnormal Instance Information by a Specific Metric

Function

This API is used to abnormal instance information by a specific metric. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/instances/diagnosis-instance-infos

Table 4-932 URI parameter

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .

Table 4-933 Query parameters

Parameter	Mandatory	Type	Description
metric_name	Yes	String	Metric name.

Parameter	Mandatory	Type	Description
offset	Yes	Integer	Index offset. If offset is set to <i>N</i> , the query starts from the <i>N</i> +1 piece of data. The value is 0 by default, indicating that the query starts from the first piece of data. The value must be a number but cannot be a negative number.
limit	Yes	Integer	Number of records to be queried. The default value is 100 . The value must be a positive integer. The minimum value is 1 and the maximum value is 100 .

Request Parameters

Table 4-934 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Response Parameters

Status code: 200

Table 4-935 Response body parameters

Parameter	Type	Description
total_count	Integer	Number of abnormal instances queried by the current metric.

Parameter	Type	Description
instance_infos	Array of InstanceInfoForDiagnosis objects	Information about the abnormal instances.

Table 4-936 InstanceInfoForDiagnosis

Parameter	Type	Description
instance_id	String	Instance ID.
master_node_id	String	Primary node ID.

Status code: 400

Table 4-937 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-938 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying abnormal instance information based on **project_id** and a metric name (The information is displayed on multiple pages.)

```
GET https://{endpoint}/v3/0483b6b16e954cb88930a360d2c4e663/instances/diagnosis-instance-infos?metric_name=high_pressure&offset=0&limit=10
```

Example Response

Status code: 200

Success.

```
{
  "total_count": 6,
  "instance_infos": [ {
    "instance_id": "6206d5be05914703938ff9dfe5c07d34in07",
    "master_node_id": "7fe925aa8bab4cc9bac3990a94386c29no07"
  }, {
    "instance_id": "cbdb32e08f0440158c4f2998dbf69b14in07",
    "master_node_id": "3e90e7b99b964dca9704b3af903fcb41no07"
  }, {
    "instance_id": "325af119c2ca4e77b1deb4810a9b921bin07",
    "master_node_id": "f4dfb362039a45818e59416abc9a5ca6no07"
  }, {
    "instance_id": "9e8b52a5b6e84f4a9e4db01235b1c770in07",
    "master_node_id": "408666cd6f104133ad0685b722f88cffno07"
  }, {
    "instance_id": "5814254f12f74d16bd0a93885b00867fin07",
    "master_node_id": "637d96ffb6745ff835445fe87d08fc5no07"
  }, {
    "instance_id": "d0da4882ebdf44bd9d3f1edf9b0bd4a2in07",
    "master_node_id": "7a670f4ecdf14db5a4b5df737b0911a5no07"
  } ]
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.15 HTAP (Standard Edition)

4.15.1 Restoring a Data Synchronization Task for a StarRocks Instance

Function

This API is used to restore a data synchronization task for a StarRocks instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

POST /v3/{project_id}/instances/{instance_id}/starrocks/databases/replication/resume

Table 4-939 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	StarRocks instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-940 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Table 4-941 Request body parameter

Parameter	Mandatory	Type	Description
task_name	Yes	String	Synchronization task name. The value can contain 3 to 128 characters. Only uppercase letters, lowercase letters, digits, and underscores (_) are allowed.

Response Parameters

Status code: 200

Table 4-942 Response body parameter

Parameter	Type	Description
job_id	String	ID of the task for restoring data synchronization.

Status code: 400

Table 4-943 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-944 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

```
POST https://{localhost}/v3/{project_id}/instances/{instance_id}/starrocks/databases/replication/resume
{
  "task_name" : "task_name"
}
```

Example Response

Status code: 200

Success

```
{
  "job_id" : "123"
}
```

Status code: 400

Client error.


```
{
  "error_code" : "DBS.200022",
  "error_msg" : "Instance not found."
}
```

Status Code

Status Code	Description
200	Success
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.15.2 Stopping a Data Synchronization Task for a StarRocks Instance

Function

This API is used to stop a data synchronization task for a StarRocks instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

POST /v3/{project_id}/instances/{instance_id}/starrocks/databases/replication/pause

Table 4-945 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	StarRocks instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-946 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Table 4-947 Request body parameter

Parameter	Mandatory	Type	Description
task_name	Yes	String	Synchronization task name. The value can contain 3 to 128 characters. Only uppercase letters, lowercase letters, digits, and underscores (_) are allowed.

Response Parameters

Status code: 200

Table 4-948 Response body parameter

Parameter	Type	Description
job_id	String	ID of the task for stopping data synchronization.

Status code: 400

Table 4-949 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500**Table 4-950** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

```
POST https://{localhost}/v3/{project_id}/instances/{instance_id}/starrocks/databases/replication/pause
{
  "task_name" : "task_name"
}
```

Example Response

Status code: 200

Success

```
{
  "job_id" : "123"
}
```

Status code: 400

Client error.

```
{
  "error_code" : "DBS.200022",
  "error_msg" : "Instance not found."
}
```

Status Code

Status Code	Description
200	Success
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.15.3 Creating a StarRocks Instance

Function

This API is used to create a StarRocks instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

POST /v3/{project_id}/instances/{instance_id}/starrocks

Table 4-951 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	TaurusDB instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-952 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
Content-Type	Yes	String	Content type. Value: application/json

Parameter	Mandatory	Type	Description
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Table 4-953 Request body parameters

Parameter	Mandatory	Type	Description
name	Yes	String	Instance name. Instances of the same type can have the same name under the same tenant. The name must start with a letter and consist of 4 to 64 characters. Only letters (case-sensitive), digits, hyphens (-), and underscores (_) are allowed.
engine	Yes	engine object	Engine information.
ha	Yes	ha object	Deployment information.
fe_flavor_id	Yes	String	Specification ID of the frontend node. You can use the value of id in the response to querying HTAP specifications.
be_flavor_id	Yes	String	Specification ID of the backend node. You can use the value of id in the response to querying HTAP specifications.

Parameter	Mandatory	Type	Description
db_root_pwd	Yes	String	Database password. The password must meet the following requirements: <ul style="list-style-type: none"> The password contains at least three types of the following characters: uppercase letters, lowercase letters, digits, and special characters ~!@#%&^*-_+=?,& ,. The password consists of 8 to 32 characters. You are advised to enter a strong password to improve security and prevent security risks such as brute force cracking. If you enter a weak password, the system automatically determines that the password is invalid.
fe_count	Yes	Integer	Number of frontend nodes. <ul style="list-style-type: none"> The value is fixed to 1 for a single-node instance. For a cluster instance, the value ranges from 3 to 10.
be_count	Yes	Integer	Number of backend nodes. <ul style="list-style-type: none"> The value is fixed to 1 for a single-node instance. For a cluster instance, the value ranges from 3 to 10.
az_mode	Yes	String	AZ type. Currently, only single AZ is supported. Enumerated value: single
fe_volume	Yes	fe_volume object	Storage information of the frontend node.
be_volume	Yes	be_volume object	Storage information of the backend node.
az_code	Yes	String	AZ code.
time_zone	No	String	Time zone. The default time zone is UTC+08:00.

Parameter	Mandatory	Type	Description
tags_info	Yes	tags_info object	Tag information.

Table 4-954 engine

Parameter	Mandatory	Type	Description
type	Yes	String	Engine type. Only StarRocks is supported.
version	Yes	String	Major version number of the engine.

Table 4-955 ha

Parameter	Mandatory	Type	Description
mode	Yes	String	Deployment mode. Enumerated values: <ul style="list-style-type: none"> • Single • Cluster

Table 4-956 fe_volume

Parameter	Mandatory	Type	Description
io_type	Yes	String	Storage type. The value can be obtained from the response to querying HTAP engine resources.
capacity_in_gb	Yes	Integer	Storage space in GB. Increment: 10 GB <ul style="list-style-type: none"> • Minimum value: 50 • Maximum value: 1000

Table 4-957 be_volume

Parameter	Mandatory	Type	Description
io_type	Yes	String	Storage type. The value can be obtained from the response to querying HTAP engine resources.
capacity_in_gb	Yes	Integer	Storage space in GB. Increment: 10 GB <ul style="list-style-type: none"> • Minimum value: 50 • Maximum value: 32000

Table 4-958 tags_info

Parameter	Mandatory	Type	Description
sys_tags	Yes	Array of sys_tags objects	System tags.

Table 4-959 sys_tags

Parameter	Mandatory	Type	Description
key	Yes	String	Tag key. Enumerated value: _sys_enterprise_project_id
value	Yes	String	Tag value. Enumerated value: 0

Response Parameters

Status code: 201

Table 4-960 Response body parameters

Parameter	Type	Description
instance	instance object	Instance information.
job_id	String	Workflow ID.

Table 4-961 instance

Parameter	Type	Description
id	String	StarRocks instance ID, which is compliant with the UUID format.
az_code	String	AZ code.
az_mode	String	AZ type. Values: <ul style="list-style-type: none">● single: single AZ● multi: multiple AZs
name	String	Instance name.
engine	engine object	Engine information.
vpc_id	String	VPC ID.
security_group_id	String	Security group ID.
sub_net_id	String	Subnet ID.
db_user	String	Database user. The default value is root .
port	Integer	Database port number. The default value is 3306 .
ha_mode	String	Deployment mode.
pay_info	pay_info object	Billing information.
enable_ssl	Boolean	Whether to enable SSL.
status	String	Instance status.
region	String	Region where the instance is deployed.
tags_info	tags_info object	Instance tags.

Table 4-962 engine

Parameter	Type	Description
type	String	Engine type.
version	String	Major version number of the engine.

Table 4-963 pay_info

Parameter	Type	Description
pay_model	String	Billing mode. <ul style="list-style-type: none">• 0: pay-per-use• 1: yearly/monthly StarRocks instances support only pay-per-use billing. The default value is 0 .
order_id	String	Yearly/monthly order ID.
period	String	Yearly/monthly subscription period.
period_type	String	Subscription period type.
is_auto_renew	String	Whether to automatically renew the yearly/monthly subscription.

Table 4-964 tags_info

Parameter	Type	Description
tags	Array of tags objects	User tags. This parameter is left blank by default.
sys_tags	Array of sys_tags objects	System tags.

Table 4-965 tags

Parameter	Type	Description
key	String	Tag key.
value	String	Tag value.

Table 4-966 sys_tags

Parameter	Type	Description
key	String	Tag key.
value	String	Tag value.

Status code: 400

Table 4-967 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500**Table 4-968** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Creating a DB instance

```
POST https://{endpoint}/v3/23a50154cf494ec9ad6883979a12db0a/instances/40dc4c5729f14aad893e2dcd5baf6a15in07/starrocks
```

```
{
  "name": "htap-ff64",
  "engine": {
    "type": "star-rocks",
    "version": "3.1"
  },
  "ha": {
    "mode": "Single"
  },
  "fe_flavor_id": "afef3bfd-ac7c-32e1-ba44-c388acbb196a",
  "be_flavor_id": "de565db8-0a96-37ea-9388-61167624712c",
  "db_root_pwd": "Test@123!",
  "fe_count": 1,
  "be_count": 1,
  "az_mode": "single",
  "fe_volume": {
    "io_type": "SSD",
    "capacity_in_gb": 50
  },
  "be_volume": {
    "io_type": "SSD",
    "capacity_in_gb": 50
  },
  "az_code": "az",
  "time_zone": "UTC+08:00",
  "tags_info": {
    "sys_tags": [ {
      "key": "_sys_enterprise_project_id",
      "value": "0"
    } ]
  }
}
```

Example Response

Status code: 201

Success.

```
{
  "instance": {
    "id": "590031445ef845bb912d7fc8243db80cin17",
    "az_code": "az1",
    "az_mode": "single",
    "name": "htap-ff64",
    "engine": {
      "type": "star-rocks",
      "version": "3.1"
    },
    "vpc_id": "d5a1a29b-1476-490f-9682-c1a59593e7b0",
    "security_group_id": "967a0ac2-3cae-4e57-a49a-d0f6ff07dcc1",
    "sub_net_id": "2ce0bc80-bfc5-4d5e-9b78-a7f91572e03b",
    "db_user": "root",
    "port": 3306,
    "ha_mode": "Single",
    "pay_info": {
      "pay_model": "0",
      "order_id": null,
      "period": null,
      "period_type": null,
      "is_auto_renew": null
    },
    "enable_ssl": false,
    "status": "creating",
    "region": "az",
    "tags_info": {
      "tags": [],
      "sys_tags": [ {
        "key": "_sys_enterprise_project_id",
        "value": "0"
      } ]
    }
  },
  "job_id": "cf0b7506-1505-450f-9d95-ce9d93b6b5c3"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.15.4 Querying a StarRocks Instance

Function

This API is used to query a StarRocks instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/instances/{instance_id}/starrocks/{starrocks_instance_id}

Table 4-969 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	TaurusDB instance ID, which is compliant with the UUID format.
starrocks_instance_id	Yes	String	StarRocks instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-970 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
Content-Type	Yes	String	Content type. Value: application/json
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Response Parameters

Status code: 200

Table 4-971 Response body parameters

Parameter	Type	Description
instances	Array of instances objects	Instance information.

Table 4-972 instances

Parameter	Type	Description
id	String	Instance ID, which is compliant with the UUID format.
name	String	Instance name.
project_id	String	Project ID of a tenant in a region.
public_ip	String	Public IP address.
data_vip	String	Data IP address of the frontend node. Use commas (,) to separate multiple IP addresses.
can_enable_public_access	Boolean	Whether the instance can be accessed from a public network.
current_backup_node_id	String	ID of the backup node.
cluster_mode	String	Deployment mode.
status	String	Instance status.
is_frozen	Integer	Whether the instance is frozen.
frozen_time	Long	Frozen time.
db_user	String	Default username.
bak_period	String	Backup cycle.
bak_keep_day	Integer	Backup retention days.
bak_expected_start_time	Long	Estimated backup start time.
data_store_version_id	String	DB version ID.
data_store_version	String	DB version.
data_store_type	String	DB engine.
create_at	Long	Instance creation time.

Parameter	Type	Description
update_at	Long	Instance update time.
delete_at	Long	Instance deletion time.
db_port	String	Database port.
param_group	String	Parameter template.
actions	Array of QueryAction objects	Instance actions.
create_fail_error_code	String	Error code for creation failure.
groups	Array of groups objects	Instance groups.
ops_window	ops_window object	Instance operation time window.
tags_info	tags_info object	Instance tags.
time_zone	String	Time zone.
backup_used_space	String	Used backup space.
az_mode	String	AZ type. Values: <ul style="list-style-type: none">● single: single AZ● multi: multiple AZs
enterprise_project_id	String	Enterprise project ID.
port_info	port_info object	Port information.
fe_node_volume_code	String	Storage type of the frontend node.
be_node_volume_code	String	Storage type of the backend node.
fe_node_volume_size	String	Storage space of the frontend node.
be_node_volume_size	String	Storage space of the backend node.
support_data_replication	Boolean	Whether data replication is supported.

Parameter	Type	Description
new_version_available	Boolean	Whether there is a new DB version available.
ssl_option	Boolean	SSL switch.
dedicated_resource_id	String	Dedicated resource pool ID. This parameter is returned only when the instance belongs to a dedicated resource pool.
pay_model	String	Billing mode.

Table 4-973 groups

Parameter	Type	Description
id	String	Group ID.
name	String	Group name.
nodes	Array of nodes objects	Instance node information.
group_type_name	String	Instance group type name.
group_node_type	String	Type of the node in the instance group.

Table 4-974 nodes

Parameter	Type	Description
id	String	Instance node ID.
name	String	Instance node name.
type	String	Instance node type.
status	String	Node status. Values: <ul style="list-style-type: none">● creating: The node is being created.● normal: The node is normal.● abnormal: The node is abnormal.● createfail: The node failed to be created.
period	String	Instance node subscription period.
volume	volume object	Instance node storage information.

Parameter	Type	Description
cpu	String	vCPUs of the instance node.
mem	String	Memory size (GB) of the instance node.
datastore	datastore object	Database information.
actions	Array of QueryAction objects	Node actions.
priority	Integer	Node priority.
frozen_flag	Integer	Frozen flag.
db_port	Integer	Database port number. The default value is 3306 .
pay_model	String	Billing mode.
order_id	String	Order ID.
traffic_ip	String	Data IP address.
traffic_ipv6	String	Data IPv6 address.
az_code	String	AZ code.
az_description	String	AZ description.
az_type	String	AZ type.
region_code	String	Region where the instance is deployed.
create_at	Long	Time when the node was created.
update_at	Long	Time when the node was updated.
flavor_id	String	Node specification ID.
flavor_ref	String	Node specification code.
iaas_flavor_ref	String	IaaS specification code.
max_connections	String	Maximum number of public network connections.
vpc_id	String	VPC ID.
subnet_id	String	Subnet ID.
need_restart	Boolean	Whether a reboot is required for parameter update.
sg_id	String	Security group.

Parameter	Type	Description
param_group	Map<String,ParamGroup>	Parameter template information.

Table 4-975 volume

Parameter	Type	Description
type	String	Storage type of the instance node.
size	String	Storage space of the instance node.

Table 4-976 datastore

Parameter	Type	Description
id	String	Database ID.
type	String	Database type.
version	String	DB version.

Table 4-977 QueryAction

Parameter	Type	Description
id	String	Instance or node action ID.
action	String	Instance or node action name.
object_id	String	Object ID of the instance or node action.
type	String	Instance or node action type.
job_id	String	Task ID of the instance or node action.
status	String	Instance or node action status. Enumerated values: <ul style="list-style-type: none"> • OK_TO_RUN • DELETED
created_at	Long	Time when the instance or node action was created.
updated_at	Long	Time when the instance or node action was updated.

Table 4-978 ParamGroup

Parameter	Type	Description
id	String	Parameter template ID.
name	String	Parameter template name.

Table 4-979 ops_window

Parameter	Type	Description
period	String	Time window period.
start_time	String	Start time of the time window.
end_time	String	End time of the time window.

Table 4-980 tags_info

Parameter	Type	Description
tags	Array of tags objects	User tags.
sys_tags	Array of sys_tags objects	System tags.

Table 4-981 tags

Parameter	Type	Description
key	String	Tag key. <ul style="list-style-type: none">• It can contain a maximum of 36 Unicode characters.• It cannot be an empty string, a space, or left blank.• It can contain uppercase and lowercase letters, digits, hyphens (-), underscores (_), and Unicode characters (\u4E00-\u9FFF).

Parameter	Type	Description
value	String	<p>Tag value.</p> <ul style="list-style-type: none"> It can contain a maximum of 43 Unicode characters. It can be an empty string. It can contain uppercase and lowercase letters, digits, periods (.), hyphens (-), underscores (_), and Unicode characters (\u4E00-\u9FFF).

Table 4-982 sys_tags

Parameter	Type	Description
key	String	<p>Tag key.</p> <ul style="list-style-type: none"> It can contain a maximum of 36 Unicode characters. It cannot be an empty string, a space, or left blank. It can contain uppercase and lowercase letters, digits, hyphens (-), underscores (_), and Unicode characters (\u4E00-\u9FFF).
value	String	<p>Tag value.</p> <ul style="list-style-type: none"> It can contain a maximum of 43 Unicode characters. It can be an empty string. It can contain uppercase and lowercase letters, digits, periods (.), hyphens (-), underscores (_), and Unicode characters (\u4E00-\u9FFF).

Table 4-983 port_info

Parameter	Type	Description
mysql_port	Integer	TaurusDB port. The default value is 3306 .

Status code: 400

Table 4-984 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-985 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying the ID of a StarRocks instance

```
GET https://{endpoint}/v3/23a50154cf494ec9ad6883979a12db0a/instances/
fb632d1d531a4107804f0f082581810fin07/starrocks/b6280c323ce449f2ad02af74e21f3dc5in17
```

Example Response

Status code: 200

Success.

```
{
  "instances": [ {
    "id": "b6280c323ce449f2ad02af74e21f3dc5in17",
    "name": "htap-7ef5",
    "project_id": "23a50154cf494ec9ad6883979a12db0a",
    "public_ip": "",
    "data_vip": "10.0.0.156,10.0.0.179,10.0.0.199,10.0.0.152",
    "can_enable_public_access": false,
    "current_backup_node_id": null,
    "cluster_mode": "Cluster",
    "status": "abnormal",
    "is_frozen": 0,
    "frozen_time": null,
    "db_user": null,
    "bak_period": null,
    "bak_keep_day": null,
    "bak_expected_start_time": null,
    "data_store_version_id": "38197973-8895-36ed-b853-52daeebf6d3a",
    "data_store_version": "3.1.6.0",
    "data_store_type": "star-rocks",
    "create_at": 1711421838049,
    "update_at": 1711423400451,
    "delete_at": null,
    "db_port": "3306",
    "param_group": null,
    "actions": [ ],
    "create_fail_error_code": null,
    "groups": [ {
```

```
"id" : "73a7c579381041e1867e9facdf11ca7egr17",
"name" : "htap-7ef5_fe_shard01",
"nodes" : [ {
  "id" : "21f14a5974a540f2afb541eaf6e90107no17",
  "name" : "htap-7ef5_fe_shard01_node04",
  "type" : "fe-follower",
  "status" : "normal",
  "period" : "null",
  "volume" : {
    "type" : "SSD",
    "size" : "50000000000",
    "used" : null,
    "iops" : null
  },
  "cpu" : "4",
  "mem" : "16",
  "datastore" : {
    "id" : "38197973-8895-36ed-b853-52daeefb6d3a",
    "type" : "star-rocks",
    "version" : "3.1.6.0"
  },
  "actions" : [ ],
  "priority" : 1,
  "frozen_flag" : 0,
  "db_port" : 3306,
  "pay_model" : "0",
  "order_id" : null,
  "traffic_ip" : "10.0.0.156",
  "traffic_ipv6" : "",
  "az_code" : "az",
  "az_description" : "az1",
  "az_type" : "Center",
  "region_code" : "region1",
  "create_at" : 1711421838049,
  "update_at" : 1711422776266,
  "flavor_id" : "afef3bfd-ac7c-32e1-ba44-c388acbb196a",
  "flavor_ref" : "gaussdb.sr-fe.xlarge.x86.4",
  "iaas_flavor_ref" : "c6.xlarge.4",
  "max_connections" : "0",
  "vpc_id" : "d5a1a29b-1476-490f-9682-c1a59593e7b0",
  "subnet_id" : "2ce0bc80-bfc5-4d5e-9b78-a7f91572e03b",
  "need_restart" : false,
  "sg_id" : "967a0ac2-3cae-4e57-a49a-d0f6ff07dcc1",
  "param_group" : null
}, {
  "id" : "60c7b1dda3c14366b9e6314de0be905bno17",
  "name" : "htap-7ef5_fe_shard01_node03",
  "type" : "fe-follower",
  "status" : "normal",
  "period" : "null",
  "volume" : {
    "type" : "SSD",
    "size" : "50000000000",
    "used" : null,
    "iops" : null
  },
  "cpu" : "4",
  "mem" : "16",
  "datastore" : {
    "id" : "38197973-8895-36ed-b853-52daeefb6d3a",
    "type" : "star-rocks",
    "version" : "3.1.6.0"
  },
  "actions" : [ ],
  "priority" : 1,
  "frozen_flag" : 0,
  "db_port" : 3306,
  "pay_model" : "0",
  "order_id" : null,
```

```
"traffic_ip" : "10.0.0.179",
"traffic_vip" : "",
"traffic_ipv6" : "",
"traffic_vipv6" : "",
"az_code" : "az",
"az_description" : "az1",
"az_type" : "Center",
"region_code" : "region1",
"create_at" : 1711421838049,
"update_at" : 1711421838049,
"flavor_id" : "afef3bfd-ac7c-32e1-ba44-c388acbb196a",
"flavor_ref" : "gaussdb.sr-fe.xlarge.x86.4",
"iaas_flavor_ref" : "c6.xlarge.4",
"max_connections" : "0",
"vpc_id" : "d5a1a29b-1476-490f-9682-c1a59593e7b0",
"subnet_id" : "2ce0bc80-bfc5-4d5e-9b78-a7f91572e03b",
"need_restart" : false,
"sg_id" : "967a0ac2-3cae-4e57-a49a-d0f6ff07dcc1",
"param_group" : null
}, {
  "id" : "c786d7b2593645ffac4544a3107943b4no17",
  "name" : "htap-7ef5_fe_shard01_node02",
  "type" : "fe-follower",
  "status" : "normal",
  "period" : "null",
  "volume" : {
    "type" : "SSD",
    "size" : "50000000000",
    "used" : null,
    "iops" : null
  },
  "cpu" : "4",
  "mem" : "16",
  "datastore" : {
    "id" : "38197973-8895-36ed-b853-52daeefb6d3a",
    "type" : "star-rocks",
    "version" : "3.1.6.0"
  },
  "actions" : [ ],
  "priority" : 1,
  "frozen_flag" : 0,
  "db_port" : 3306,
  "pay_model" : "0",
  "order_id" : null,
  "traffic_ip" : "10.0.0.199",
  "traffic_vip" : "",
  "traffic_ipv6" : "",
  "traffic_vipv6" : "",
  "az_code" : "az",
  "az_description" : "az1",
  "az_type" : "Center",
  "region_code" : "region1",
  "create_at" : 1711421838049,
  "update_at" : 1711421838049,
  "flavor_id" : "afef3bfd-ac7c-32e1-ba44-c388acbb196a",
  "flavor_ref" : "gaussdb.sr-fe.xlarge.x86.4",
  "iaas_flavor_ref" : "c6.xlarge.4",
  "max_connections" : "0",
  "vpc_id" : "d5a1a29b-1476-490f-9682-c1a59593e7b0",
  "subnet_id" : "2ce0bc80-bfc5-4d5e-9b78-a7f91572e03b",
  "need_restart" : false,
  "sg_id" : "967a0ac2-3cae-4e57-a49a-d0f6ff07dcc1",
  "param_group" : null
}, {
  "id" : "ffb9f510f9934b0384789a2a4652d3e0no17",
  "name" : "htap-7ef5_fe_shard01_node01",
  "type" : "fe-leader",
  "status" : "abnormal",
  "period" : "null",
```

```
"volume": {
  "type": "SSD",
  "size": "50000000000",
  "used": null,
  "iops": null
},
"cpu": "4",
"mem": "16",
"datastore": {
  "id": "38197973-8895-36ed-b853-52daeefb6d3a",
  "type": "star-rocks",
  "version": "3.1.6.0"
},
"actions": [ ],
"priority": 1,
"frozen_flag": 0,
"db_port": 3306,
"pay_model": "0",
"order_id": null,
"traffic_ip": "10.0.0.152",
"traffic_ipv6": "",
"az_code": "az",
"az_description": "az1",
"az_type": "Center",
"region_code": "region1",
"create_at": 1711421838049,
"update_at": 1711422932204,
"flavor_id": "afef3bfd-ac7c-32e1-ba44-c388acbb196a",
"flavor_ref": "gaussdb.sr-fe.xlarge.x86.4",
"iaas_flavor_ref": "c6.xlarge.4",
"max_connections": "0",
"vpc_id": "d5a1a29b-1476-490f-9682-c1a59593e7b0",
"subnet_id": "2ce0bc80-bfc5-4d5e-9b78-a7f91572e03b",
"need_restart": false,
"sg_id": "967a0ac2-3cae-4e57-a49a-d0f6ff07dcc1",
"param_group": null
}],
"group_type_name": "starrocks",
"group_node_type": "fe"
}, {
  "id": "bf50855824c9485f9368845dfb4457dcgr17",
  "name": "htap-7ef5_be_shard01",
  "nodes": [ {
    "id": "98e7f36d39fb4d9ca7c92c8c1fa4991ano17",
    "name": "htap-7ef5_be_shard01_node02",
    "type": "be",
    "status": "normal",
    "period": "null",
    "volume": {
      "type": "SSD",
      "size": "50000000000",
      "used": null,
      "iops": null
    }
  },
  "cpu": "4",
  "mem": "16",
  "datastore": {
    "id": "38197973-8895-36ed-b853-52daeefb6d3a",
    "type": "star-rocks",
    "version": "3.1.6.0"
  },
  "actions": [ ],
  "priority": 1,
  "frozen_flag": 0,
  "db_port": 3306,
  "pay_model": "0",
  "order_id": null,
  "traffic_ip": "10.0.0.202",
  "traffic_vip": "",
```



```
"traffic_ipv6" : "",
"traffic_vipv6" : "",
"az_code" : "az",
"az_description" : "az1",
"az_type" : "Center",
"region_code" : "region1",
"create_at" : 1711421838049,
"update_at" : 1711422835209,
"flavor_id" : "de565db8-0a96-37ea-9388-61167624712c",
"flavor_ref" : "gaussdb.sr-be.xlarge.x86.4",
"iaas_flavor_ref" : "c6.xlarge.4",
"max_connections" : "0",
"vpc_id" : "d5a1a29b-1476-490f-9682-c1a59593e7b0",
"subnet_id" : "2ce0bc80-bfc5-4d5e-9b78-a7f91572e03b",
"need_restart" : false,
"sg_id" : "967a0ac2-3cae-4e57-a49a-d0f6ff07dcc1",
"param_group" : null
}, {
  "id" : "be254b607c5e4f3d97c4d7886043e5bcno17",
  "name" : "htap-7ef5_be_shard01_node03",
  "type" : "be",
  "status" : "normal",
  "period" : "null",
  "volume" : {
    "type" : "SSD",
    "size" : "50000000000",
    "used" : null,
    "iops" : null
  },
  "cpu" : "4",
  "mem" : "16",
  "datastore" : {
    "id" : "38197973-8895-36ed-b853-52daeefb6d3a",
    "type" : "star-rocks",
    "version" : "3.1.6.0"
  },
  "actions" : [ ],
  "priority" : 1,
  "frozen_flag" : 0,
  "db_port" : 3306,
  "pay_model" : "0",
  "order_id" : null,
  "traffic_ip" : "10.0.0.115",
  "traffic_vip" : "",
  "traffic_ipv6" : "",
  "traffic_vipv6" : "",
  "az_code" : "az",
  "az_description" : "az1",
  "az_type" : "Center",
  "region_code" : "region1",
  "create_at" : 1711421838049,
  "update_at" : 1711421838049,
  "flavor_id" : "de565db8-0a96-37ea-9388-61167624712c",
  "flavor_ref" : "gaussdb.sr-be.xlarge.x86.4",
  "iaas_flavor_ref" : "c6.xlarge.4",
  "max_connections" : "0",
  "vpc_id" : "d5a1a29b-1476-490f-9682-c1a59593e7b0",
  "subnet_id" : "2ce0bc80-bfc5-4d5e-9b78-a7f91572e03b",
  "need_restart" : false,
  "sg_id" : "967a0ac2-3cae-4e57-a49a-d0f6ff07dcc1",
  "param_group" : null
}, {
  "id" : "c8899a3a68184de6a7fd140028392b27no17",
  "name" : "htap-7ef5_be_shard01_node01",
  "type" : "be",
  "status" : "normal",
  "period" : "null",
  "volume" : {
    "type" : "SSD",
```

```
    "size" : "50000000000",
    "used" : null,
    "iops" : null
  },
  "cpu" : "4",
  "mem" : "16",
  "datastore" : {
    "id" : "38197973-8895-36ed-b853-52daeefb6d3a",
    "type" : "star-rocks",
    "version" : "3.1.6.0"
  },
  "actions" : [ ],
  "priority" : 1,
  "frozen_flag" : 0,
  "db_port" : 3306,
  "pay_model" : "0",
  "order_id" : null,
  "traffic_ip" : "10.0.0.17",
  "traffic_vip" : "",
  "traffic_ipv6" : "",
  "traffic_vipv6" : "",
  "az_code" : "az",
  "az_description" : "az1",
  "az_type" : "Center",
  "region_code" : "region1",
  "create_at" : 1711421838049,
  "update_at" : 1711421838049,
  "flavor_id" : "de565db8-0a96-37ea-9388-61167624712c",
  "flavor_ref" : "gaussdb.sr-be.xlarge.x86.4",
  "iaas_flavor_ref" : "c6.xlarge.4",
  "max_connections" : "0",
  "vpc_id" : "d5a1a29b-1476-490f-9682-c1a59593e7b0",
  "subnet_id" : "2ce0bc80-bfc5-4d5e-9b78-a7f91572e03b",
  "need_restart" : false,
  "sg_id" : "967a0ac2-3cae-4e57-a49a-d0f6ff07dcc1",
  "param_group" : null
  },
  "group_type_name" : "starrocks",
  "group_node_type" : "be"
}],
"ops_window" : {
  "period" : null,
  "start_time" : "18:00",
  "end_time" : "22:00"
},
"tags_info" : {
  "tags" : [ ],
  "sys_tags" : [ {
    "key" : "_sys_enterprise_project_id",
    "value" : "0"
  } ]
},
"time_zone" : "UTC+08:00",
"backup_used_space" : null,
"az_mode" : "single",
"enterprise_project_id" : "0",
"port_info" : {
  "mysql_port" : 3306
},
"fe_node_volume_code" : "gaussdb.sr.evs.ultrahighio",
"be_node_volume_code" : "gaussdb.sr.evs.ultrahighio",
"fe_node_volume_size" : "50000000000",
"be_node_volume_size" : "50000000000",
"support_data_replication" : true,
"new_version_available" : false,
"ssl_option" : false,
"dedicated_resource_id" : null,
"pay_model" : "0"
```

```
}]  
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.15.5 Deleting a StarRocks Instance

Function

This API is used to delete a StarRocks instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

DELETE /v3/{project_id}/instances/{instance_id}/starrocks/{starrocks_instance_id}

Table 4-986 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	TaurusDB instance ID, which is compliant with the UUID format.
starrocks_instance_id	Yes	String	StarRocks instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-987 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
Content-Type	Yes	String	Content type. Value: application/json
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Response Parameters

Status code: 200**Table 4-988** Response body parameters

Parameter	Type	Description
workflow_id	String	Workflow ID.

Status code: 400**Table 4-989** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-990 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Deleting a StarRocks instance

```
DELETE https://{endpoint}/v3/23a50154cf494ec9ad6883979a12db0a/instances/  
fb632d1d531a4107804f0f082581810fin07/starrocks/9ac58f9b88744f8a87893d22f6ef9a28in17
```

Example Response

Status code: 200

Success.

```
{  
  "workflow_id" : "e1bfd0d1-b8d8-417c-9947-7e2ae0de9745"  
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.15.6 Rebooting a StarRocks Instance

Function

This API is used to reboot a StarRocks instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

```
PUT /v3/{project_id}/instances/{starrocks_instance_id}/starrocks/restart
```

Table 4-991 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
starrocks_instance_id	Yes	String	StarRocks instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-992 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
Content-Type	Yes	String	Content type. Value: application/json
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> en-us zh-cn

Response Parameters

Status code: 200

Table 4-993 Response body parameters

Parameter	Type	Description
workflow_id	String	Workflow ID.

Status code: 400

Table 4-994 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500**Table 4-995** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Rebooting a StarRocks instance

```
PUT https://{endpoint}/v3/23a50154cf494ec9ad6883979a12db0a/instances/  
9ac58f9b88744f8a87893d22f6ef9a28in17/starrocks/restart
```

Example Response

Status code: 200

Success.

```
{  
  "workflow_id" : "e1bfd0d1-b8d8-417c-9947-7e2ae0de9745"  
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.15.7 Rebooting a StarRocks Node

Function

This API is used to reboot a StarRocks node. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

PUT /v3/{project_id}/instances/{starrocks_instance_id}/starrocks/{starrocks_node_id}/restart

Table 4-996 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
starrocks_node_id	Yes	String	StarRocks node ID.
starrocks_instance_id	Yes	String	StarRocks instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-997 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
Content-Type	Yes	String	Content type. Value: application/json
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Response Parameters

Status code: 200

Table 4-998 Response body parameters

Parameter	Type	Description
workflow_id	String	Workflow ID.

Status code: 400**Table 4-999** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500**Table 4-1000** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Rebooting a node of a StarRocks instance

```
PUT https://{endpoint}/v3/23a50154cf494ec9ad6883979a12db0a/instances/9ac58f9b88744f8a87893d22f6ef9a28in17/starrocks/2c464fbdc8ea4c59814dab2243d8e270no17/restart
```

Example Response

Status code: 200

Success.

```
{
  "workflow_id" : "e1bfd0d1-b8d8-417c-9947-7e2ae0de9745"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.15.8 Checking StarRocks Resources

Function

This API is used to check StarRocks resources. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

POST /v3/{project_id}/starrocks/resource-check

Table 4-1001 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .

Request Parameters

Table 4-1002 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
Content-Type	Yes	String	Content type. Value: application/json
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Table 4-1003 Request body parameters

Parameter	Mandatory	Type	Description
action	Yes	String	Verification type. Only instance creation can be verified. Enumerated value: createInstance
resource	Yes	resource object	Resource information.

Table 4-1004 resource

Parameter	Mandatory	Type	Description
enterprise_project_id	Yes	String	Enterprise project ID.
instance_num	Yes	Integer	Number of instances.
mode	Yes	String	Instance deployment mode. Enumerated values: <ul style="list-style-type: none">• Cluster• Single
availability_zone_mode	Yes	String	AZ type. Currently, only single AZ is supported.
fe_node_num	Yes	Integer	Number of frontend nodes.
be_node_num	Yes	Integer	Number of backend nodes.
fe_flavor_ref	Yes	String	Specification code of the frontend node.
be_flavor_ref	Yes	String	Specification code of the backend node.
availability_zone	No	String	AZ code. This parameter is optional. The AZ code correctness is verified.
subnet_id	Yes	String	Subnet ID. The HTAP instance subnet is also the TaurusDB instance subnet.

Response Parameters

Status code: 200

Table 4-1005 Response body parameters

Parameter	Type	Description
result	Boolean	Check result.

Status code: 400**Table 4-1006** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500**Table 4-1007** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Checking StarRocks instance resources

POST https://{endpoint}/v3/8f26bcd59e84e1d9e0569c32545cee9/starrocks/resource-check

Example Response

Status code: 200

Success.

```
{  
  "result" : true  
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.15.9 Querying HTAP Engine Resources

Function

This API is used to query HTAP engine resources. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/htap/datastores/{engine_name}

Table 4-1008 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
engine_name	Yes	String	HTAP engine name. Values: <ul style="list-style-type: none">• star-rocks• click-house

Request Parameters

Table 4-1009 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
Content-Type	Yes	String	Content type. Value: application/json
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Response Parameters

Status code: 200

Table 4-1010 Response body parameters

Parameter	Type	Description
datastores	Array of datastores objects	Database information list.

Table 4-1011 datastores

Parameter	Type	Description
id	String	DB version ID. The value is unique.
name	String	DB version number. Only the major version number with two digits is returned.
kernel_version	String	DB kernel version. A complete four-number version is returned.

Status code: 400

Table 4-1012 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-1013 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying StarRocks DB version information

```
GET https://{endpoint}/v3/23a50154cf494ec9ad6883979a12db0a/htap/datastores/star-rock
```

Example Response

Status code: 200

Success.

```
{
  "datastores": [ {
    "id": "38197973-8895-36ed-b853-52daee6b6d3a",
    "name": "3.1",
    "kernel_version": "3.1.6.0"
  } ]
}
```

Status code: 400

Client error.

```
{
  "error_msg": "Invalid database type.",
  "error_code": "DBS.280235"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.15.10 Obtaining the Storage Type of an HTAP Instance

Function

This API is used to obtain the storage type of an HTAP instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

```
GET /v3/{project_id}/htap/storage-type/{database}
```

Table 4-1014 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .

Parameter	Mandatory	Type	Description
database	Yes	String	HTAP database name. Values: <ul style="list-style-type: none"> • star-rocks • click-house

Table 4-1015 Query parameters

Parameter	Mandatory	Type	Description
version_name	Yes	String	DB major version number.

Request Parameters

Table 4-1016 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
Content-Type	Yes	String	Content type. Value: application/json
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Response Parameters

Status code: 200

Table 4-1017 Response body parameters

Parameter	Type	Description
storage_type	Array of storage_type objects	Storage type.

Table 4-1018 storage_type

Parameter	Type	Description
name	String	Name of the storage medium.
az_status	Map<String,String>	Whether the AZ is supported.
min_volume_size	Integer	Minimum disk size.

Status code: 400

Table 4-1019 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-1020 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying the storage types available for a StarRocks instance

```
GET https://{endpoint}/v3/23a50154cf494ec9ad6883979a12db0a/htap/storage-type/star-rocks?
version_name=3.1.6.0
```

Example Response

Status code: 200

Success.

```
{
  "storage_type": [ {
    "name": "ULTRAHIGH",
    "az_status": {
      "cn-southwest-244d": "normal",
      "cn-southwest-244c": "normal",
      "cn-southwest-244b": "normal",
      "cn-southwest-244a": "normal"
    }
  } ]
}
```

```

    },
    "min_volume_size" : 50
  }, {
    "name" : "ESSD",
    "az_status" : {
      "cn-southwest-244d" : "unsupported",
      "cn-southwest-244c" : "unsupported",
      "cn-southwest-244b" : "normal",
      "cn-southwest-244a" : "normal"
    },
    "min_volume_size" : 40
  }
}

```

Status code: 400

Client error.

```

{
  "error_msg": "The DB engine or version is not supported."
  "error_code": "DBS.280238",
}

```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.15.11 Querying Specifications of an HTAP Instance

Function

This API is used to query specifications of an HTAP instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/htap/flavors/{engine_name}

Table 4-1021 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
engine_name	Yes	String	HTAP engine name. Values: <ul style="list-style-type: none"> • star-rocks • click-house

Table 4-1022 Query parameters

Parameter	Mandatory	Type	Description
availability_zone_mode	No	String	AZ mode. Currently, only single AZ is supported.
spec_code	No	String	Specification code. If this parameter is specified, only the specified specification code is queried.
version_name	No	String	DB version number. If this parameter is left blank, the default value 3.1.6.0 is used.

Request Parameters

Table 4-1023 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
Content-Type	Yes	String	Content type. Value: application/json
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Response Parameters

Status code: 200

Table 4-1024 Response body parameters

Parameter	Type	Description
flavors	Array of flavors objects	Specification information.

Table 4-1025 flavors

Parameter	Type	Description
type	String	Specification type. The value can be arm , x86 , or generalX86 . <ul style="list-style-type: none">• arm: exclusive Arm• x86: exclusive x86• generalX86: general-purpose x86
vcpus	String	Number of vCPUs. For example, the value 1 indicates 1 vCPU.
ram	String	Memory size in GB.
id	String	Specification ID. The value is unique.
spec_code	String	Resource specification code. Its value is same as the value of flavor_ref . Example: gaussdb.sr-be.xlarge.x86.4 <ul style="list-style-type: none">• gaussdb.sr indicates the product.• xlarge indicates the specifications (4 vCPUs).• x86 indicates the x86 architecture.• 4 indicates the ratio of vCPUs to memory is 1:4.
version_name	String	DB version number.
instance_mode	String	Instance type. The value can be Cluster or Single .
az_status	Map<String,String>	Status of the specification in the AZ. The value can be any of the following: <ul style="list-style-type: none">• normal: The specification is available in the AZ.• unsupported: The specification is not supported.• sellout: The specification is sold out.

Status code: 400

Table 4-1026 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-1027 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying StarRocks specifications

```
GET https://{endpoint}/v3/23a50154cf494ec9ad6883979a12db0a/htap/flavors/star-rocks?
availability_zone_mode=single
```

Example Response

Status code: 200

Success.

```
{
  "flavors": [ {
    "type": "x86",
    "vcpus": "4",
    "ram": "16",
    "id": "de565db8-0a96-37ea-9388-61167624712c",
    "spec_code": "gaussdb.sr-be.xlarge.x86.4",
    "version_name": "8.0",
    "instance_mode": "Cluster",
    "az_status": {
      "az1": "normal",
      "az2": "normal",
      "az3": "normal",
      "az4": "unsupported"
    }
  }, {
    "type": "x86",
    "vcpus": "4",
    "ram": "16",
    "id": "afef3bfd-ac7c-32e1-ba44-c388acbb196a",
    "spec_code": "gaussdb.sr-fe.xlarge.x86.4",
    "version_name": "8.0",
    "instance_mode": "Cluster",
    "az_status": {
      "az1": "normal",
      "az2": "normal",
      "az3": "normal",
      "az4": "unsupported"
    }
  }
]
```

```
}
}, {
  "type": "x86",
  "vcpus": "8",
  "ram": "32",
  "id": "c50e8e15-f2fc-3b40-aca6-c98f07ce2ce0",
  "spec_code": "gaussdb.sr-be.2xlarge.x86.4",
  "version_name": "8.0",
  "instance_mode": "Cluster",
  "az_status": {
    "az1": "normal",
    "az2": "normal",
    "az3": "normal",
    "az4": "unsupported"
  }
}, {
  "type": "x86",
  "vcpus": "8",
  "ram": "32",
  "id": "24059750-4280-3ee5-a44b-488b924633b4",
  "spec_code": "gaussdb.sr-fe.2xlarge.x86.4",
  "version_name": "8.0",
  "instance_mode": "Cluster",
  "az_status": {
    "az1": "normal",
    "az2": "normal",
    "az3": "normal",
    "az4": "unsupported"
  }
}, {
  "type": "x86",
  "vcpus": "16",
  "ram": "64",
  "id": "a48c63dc-5563-3813-9e13-39d3301e56f4",
  "spec_code": "gaussdb.sr-be.4xlarge.x86.4",
  "version_name": "8.0",
  "instance_mode": "Cluster",
  "az_status": {
    "az1": "normal",
    "az2": "normal",
    "az3": "normal",
    "az4": "unsupported"
  }
}, {
  "type": "x86",
  "vcpus": "16",
  "ram": "64",
  "id": "0ef44c01-f7a1-30f5-9f05-9e47094e8c1f",
  "spec_code": "gaussdb.sr-fe.4xlarge.x86.4",
  "version_name": "8.0",
  "instance_mode": "Cluster",
  "az_status": {
    "az1": "normal",
    "az2": "normal",
    "az3": "normal",
    "az4": "unsupported"
  }
}, {
  "type": "x86",
  "vcpus": "32",
  "ram": "128",
  "id": "2bf6aa50-50da-3f27-91af-a8c873070537",
  "spec_code": "gaussdb.sr-fe.8xlarge.x86.4",
  "version_name": "8.0",
  "instance_mode": "Cluster",
  "az_status": {
    "az1": "normal",
    "az2": "normal",
    "az3": "normal",
```

```
    "az4" : "normal"
  }, {
    "type" : "x86",
    "vcpus" : "32",
    "ram" : "128",
    "id" : "9f52a065-aa93-371a-9975-959fedf6e24f",
    "spec_code" : "gaussdb.sr-be.8xlarge.x86.4",
    "version_name" : "8.0",
    "instance_mode" : "Cluster",
    "az_status" : {
      "az1" : "normal",
      "az2" : "normal",
      "az3" : "normal",
      "az4" : "normal"
    }
  }, {
    "type" : "x86",
    "vcpus" : "64",
    "ram" : "256",
    "id" : "709822e4-567f-3e85-b4af-cb099206c8e2",
    "spec_code" : "gaussdb.sr-fe.16xlarge.x86.4",
    "version_name" : "8.0",
    "instance_mode" : "Cluster",
    "az_status" : {
      "az1" : "normal",
      "az2" : "normal",
      "az3" : "normal",
      "az4" : "unsupported"
    }
  }, {
    "type" : "x86",
    "vcpus" : "64",
    "ram" : "256",
    "id" : "4e56e208-0226-34bb-b84d-035ab0497824",
    "spec_code" : "gaussdb.sr-be.16xlarge.x86.4",
    "version_name" : "8.0",
    "instance_mode" : "Cluster",
    "az_status" : {
      "az1" : "normal",
      "az2" : "normal",
      "az3" : "normal",
      "az4" : "unsupported"
    }
  }
}
```

Status code: 400

Client error.

```
{
  "error_msg" : "Invalid specification code.",
  "error_code" : "DBS.280434"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.15.12 Querying HTAP Instances

Function

This API is used to query HTAP instances. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/instances/{instance_id}/htap

Table 4-1028 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	TaurusDB instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-1029 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
Content-Type	Yes	String	Content type. Value: application/json
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Response Parameters

Status code: 200

Table 4-1030 Response body parameters

Parameter	Type	Description
total	Integer	Number of HTAP instances.
instances	Array of instances objects	HTAP instance information.
max_htap_instance_num_of_taurus	Integer	Maximum number of HTAP instances that can be created.

Table 4-1031 instances

Parameter	Type	Description
id	String	HTAP instance ID, which is compliant with the UUID format.
name	String	HTAP instance name.
engine_name	String	HTAP DB engine name.
engine_version	String	HTAP DB engine version.
project_id	String	Project ID of a tenant in a region.
instance_state	instance_state object	HTAP instance status information.
create_at	Long	Time when the HTAP instance was created.
is_frozen	Boolean	Whether the HTAP instance is frozen.
ha_mode	String	HTAP instance deployment mode.
pay_model	String	Billing mode. Only pay-per-use billing is supported. <ul style="list-style-type: none">• 0: pay-per-use• 1: yearly/monthly
order_id	String	Order ID for the yearly/monthly subscription.
alter_order_id	String	Alternative order ID for the yearly/monthly subscription.
data_vip	String	Private IP address.

Parameter	Type	Description
readable_node_infos	Array of ReadableNodeInfos objects	Readable node information.
proxy_ips	Array of strings	Proxy IP address.
data_vip_v6	String	Private IPv6 address.
port	Integer	Database port.
available_zones	Array of available_zones objects	AZ information.
current_actions	Array of QueryAction objects	Instance actions.
volume_type	String	Storage type.
server_type	String	Server type.
enterprise_project_id	String	Enterprise project ID. This parameter is mandatory when the enterprise project is enabled.
dedicated_resource_id	String	Dedicated resource pool ID. This parameter is displayed only when the dedicated resource pool is enabled.
network	network object	Network information.
ch_master_node_id	String	ClickHouse primary node ID.
node_num	Integer	Number of nodes.

Table 4-1032 instance_state

Parameter	Type	Description
instance_status	String	HTAP instance status.
create_fail_error_code	String	Error code for HTAP instance creation failure.
fail_message	String	Error message for HTAP instance creation failure.

Parameter	Type	Description
wait_restart_f or_params	Boolean	Whether a reboot is required for parameter updates.

Table 4-1033 ReadableNodeInfos

Parameter	Type	Description
data_ip	String	IP address of the readable node.
node_id	String	ID of the readable node.
node_name	String	Name of the readable node.

Table 4-1034 available_zones

Parameter	Type	Description
code	String	AZ code.
description	String	AZ description.
az_type	String	AZ type.

Table 4-1035 QueryAction

Parameter	Type	Description
id	String	Instance or node action ID.
action	String	Instance or node action name.
object_id	String	Object ID of the instance or node action.
type	String	Instance or node action type.
job_id	String	Task ID of the instance or node action.
status	String	Instance or node action status. Enumerated values: <ul style="list-style-type: none">• OK_TO_RUN• DELETED
created_at	Long	Time when the instance or node action was created.
updated_at	Long	Time when the instance or node action was updated.

Table 4-1036 network

Parameter	Type	Description
vpc_id	String	VPC ID.
sub_net_id	String	Subnet ID.
security_group_id	String	Security group ID.

Status code: 400

Table 4-1037 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-1038 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying HTAP instances of a TaurusDB instance

```
GET https://{endpoint}/v3/23a50154cf494ec9ad6883979a12db0a/instances/18c3eeb7b788479eb8b93b209946a83bin07/htap
```

Example Response

Status code: 200

Success.

```
{
  "total": 4,
  "instances": [ {
    "id": "bfc970d8e9b34a399b4c422aabe11409in17",
    "name": "htap-fjld",
    "engine_name": "star-rocks",
    "engine_version": "3.1.6",
    "project_id": "23a50154cf494ec9ad6883979a12db0a",
    "instance_state": {
```

```
"instance_status": "normal",
"create_fail_error_code": null,
"fail_message": null,
"wait_restart_for_params": false
},
"create_at": 1711094408228,
"is_frozen": false,
"ha_mode": "Single",
"pay_model": "0",
"order_id": null,
"alter_order_id": "",
"data_vip": "192.168.0.207",
"data_ips": {
  "node_ip": "192.168.0.207",
  "node_id": "36d62cd6a77a4e80a335077867e7912bno16",
  "node_name": "htap-1244_shard01_node01"
},
"proxy_ips": [ ],
"data_vip_v6": null,
"port": 3306,
"available_zones": [ {
  "code": "cn-southwest-244b",
  "description": "az2",
  "az_type": "Center"
} ],
"current_actions": [ ],
"volume_type": "SSD",
"server_type": "KVM",
"enter_prise_project_id": "0",
"dedicated_resource_id": "",
"network": {
  "vpc_id": "f7876b94-3696-419b-a609-161de4b42d59",
  "sub_net_id": "8926baca-467a-4556-8603-b4077805ff9d",
  "security_group_id": ""
},
"ch_master_node_id": null,
"node_num": 2
}, {
  "id": "656c539296bd47b49fe29983368b9fb2in17",
  "name": "HTAP-1711093893",
  "engine_name": "star-rocks",
  "engine_version": "3.1.6",
  "project_id": "23a50154cf494ec9ad6883979a12db0a",
  "instance_state": {
    "instance_status": "normal",
    "create_fail_error_code": null,
    "fail_message": null,
    "wait_restart_for_params": false
  },
  "create_at": 1711094228737,
  "is_frozen": false,
  "ha_mode": "Single",
  "pay_model": "0",
  "order_id": null,
  "alter_order_id": "",
  "data_vip": "192.168.0.201",
  "data_ips": [ "192.168.0.201" ],
  "proxy_ips": [ ],
  "data_vip_v6": null,
  "port": 3306,
  "available_zones": [ {
    "code": "az",
    "description": "az2",
    "az_type": "Center"
  } ],
  "current_actions": [ ],
  "volume_type": "SSD",
  "server_type": "KVM",
  "enter_prise_project_id": "0",
```

```
"dedicated_resource_id" : "",
"network" : {
  "vpc_id" : "f7876b94-3696-419b-a609-161de4b42d59",
  "sub_net_id" : "8926baca-467a-4556-8603-b4077805ff9d",
  "security_group_id" : ""
},
"ch_master_node_id" : null,
"node_num" : 2
}, {
  "id" : "04c48d11f0d24c8d8aee254981a3b94fin17",
  "name" : "htap-fjlc",
  "engine_name" : "star-rocks",
  "engine_version" : "3.1.6",
  "project_id" : "23a50154cf494ec9ad6883979a12db0a",
  "instance_state" : {
    "instance_status" : "normal",
    "create_fail_error_code" : null,
    "fail_message" : null,
    "wait_restart_for_params" : false
  },
  "create_at" : 1711075260516,
  "is_frozen" : false,
  "ha_mode" : "Cluster",
  "pay_model" : "0",
  "order_id" : null,
  "alter_order_id" : "",
  "data_vip" : "192.168.0.249",
  "data_ips" : [ "192.168.0.183", "192.168.0.7", "192.168.0.41" ],
  "proxy_ips" : [ ],
  "data_vip_v6" : null,
  "port" : 3306,
  "available_zones" : [ {
    "code" : "az",
    "description" : "az2",
    "az_type" : "Center"
  } ],
  "current_actions" : [ ],
  "volume_type" : "SSD",
  "server_type" : "KVM",
  "enter_prise_project_id" : "0",
  "dedicated_resource_id" : "",
  "network" : {
    "vpc_id" : "f7876b94-3696-419b-a609-161de4b42d59",
    "sub_net_id" : "8926baca-467a-4556-8603-b4077805ff9d",
    "security_group_id" : ""
  },
  "ch_master_node_id" : null,
  "node_num" : 6
}, {
  "id" : "f2d2441a88384023b2e30f0b600a0013in17",
  "name" : "htap-fjlb",
  "engine_name" : "star-rocks",
  "engine_version" : "3.1.6",
  "project_id" : "23a50154cf494ec9ad6883979a12db0a",
  "instance_state" : {
    "instance_status" : "normal",
    "create_fail_error_code" : null,
    "fail_message" : null,
    "wait_restart_for_params" : false
  },
  "create_at" : 1711021269903,
  "is_frozen" : false,
  "ha_mode" : "Single",
  "pay_model" : "0",
  "order_id" : null,
  "alter_order_id" : "",
  "data_vip" : "192.168.0.209",
  "data_ips" : [ "192.168.0.151", "192.168.0.209" ],
  "proxy_ips" : [ ],
```

```

"data_vip_v6" : null,
"port" : 3306,
"available_zones" : [ {
  "code" : "cn-southwest-244b",
  "description" : "az2",
  "az_type" : "Center"
} ],
"current_actions" : [ ],
"volume_type" : "SSD",
"server_type" : "KVM",
"enter_prise_project_id" : "0",
"dedicated_resource_id" : "",
"network" : {
  "vpc_id" : "f7876b94-3696-419b-a609-161de4b42d59",
  "sub_net_id" : "8926baca-467a-4556-8603-b4077805ff9d",
  "security_group_id" : ""
},
"ch_master_node_id" : null,
"node_num" : 2
} ],
"max_htap_instance_num_of_taurus" : 10
}

```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.15.13 Creating a Data Synchronization Task for a StarRocks Instance

Function

This API is used to create a data synchronization task for a StarRocks instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

POST /v3/{project_id}/instances/{instance_id}/starrocks/databases/replication

Table 4-1039 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .

Parameter	Mandatory	Type	Description
instance_id	Yes	String	StarRocks instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-1040 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	Yes	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Table 4-1041 Request body parameters

Parameter	Mandatory	Type	Description
source_instance_id	Yes	String	TaurusDB instance ID.
source_node_id	No	String	Read replica ID. If this parameter is left blank, the ID of the primary node is used.
source_database	Yes	String	Source database. The value can contain 3 to 1024 characters. Only uppercase letters, lowercase letters, digits, and underscores (_) are allowed.
target_database	Yes	String	Destination database. The value can contain 3 to 128 characters. Only uppercase letters, lowercase letters, digits, and underscores (_) are allowed.

Parameter	Mandatory	Type	Description
task_name	Yes	String	Synchronization task name. The value can contain 3 to 128 characters. Only uppercase letters, lowercase letters, digits, and underscores (_) are allowed.

Response Parameters

Status code: 200

Table 4-1042 Response body parameters

Parameter	Type	Description
job_id	String	ID of the data synchronization task.

Status code: 400

Table 4-1043 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-1044 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

```
POST https://{localhost}/v3/{project_id}/instances/{instance_id}/starrocks/databases/replication
{
  "source_instance_id" : "source_instance_id",
  "source_node_id" : "source_node_id",
  "source_database" : "source_database",
  "target_database" : "target_database",
}
```

```
"task_name" : "task_name"
}
```

Example Response

Status code: 200

Success.

```
{
  "job_id" : "123"
}
```

Status code: 400

Client error.

```
{
  "error_code" : "DBS.200022",
  "error_msg" : "Instance not found."
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.15.14 Deleting a Data Synchronization Task for a StarRocks Instance

Function

This API is used to delete a data synchronization task for a StarRocks instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

DELETE /v3/{project_id}/instances/{instance_id}/starrocks/databases/replication

Table 4-1045 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .

Parameter	Mandatory	Type	Description
instance_id	Yes	String	StarRocks instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-1046 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	Yes	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Table 4-1047 Request body parameters

Parameter	Mandatory	Type	Description
task_name	No	String	Name of the data synchronization task. The value can contain 3 to 128 characters. Only uppercase letters, lowercase letters, digits, and underscores (_) are allowed.

Response Parameters

Status code: 200

Table 4-1048 Response body parameters

Parameter	Type	Description
job_id	String	ID of the job for deleting the synchronization task.

Status code: 400

Table 4-1049 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-1050 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

```
DELETE https://{localhost}/v3/{project_id}/instances/{instance_id}/starrocks/databases/replication
{
  "task_name" : "task_name"
}
```

Example Response

Status code: 200

Success.

```
{
  "job_id" : "123"
}
```

Status code: 400

Client error.

```
{
  "error_code" : "DBS.200022",
  "error_msg" : "Instance not found."
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.15.15 Querying Data Synchronization Tasks of a StarRocks Instance

Function

This API is used to query data synchronization tasks of a StarRocks instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/instances/{instance_id}/starrocks/databases/replication

Table 4-1051 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	StarRocks instance ID, which is compliant with the UUID format.

Table 4-1052 Query parameters

Parameter	Mandatory	Type	Description
limit	No	String	Number of records to be queried. Number of data synchronization tasks displayed on each page.

Parameter	Mandatory	Type	Description
offset	No	String	Index offset. If offset is set to <i>N</i> , the query starts from the <i>N</i> +1 piece of data. The value is 0 by default, indicating that the query starts from the first piece of data. The value must be a number but cannot be a negative number.

Request Parameters

Table 4-1053 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	Yes	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Response Parameters

Status code: 200

Table 4-1054 Response body parameters

Parameter	Type	Description
total_count	String	Total number of data synchronization tasks.
replications	Array of StarRocksReplicationInfo objects	Information about data synchronization tasks.
ext_text	String	Extended field.

Table 4-1055 StarRocksReplicationInfo

Parameter	Type	Description
source_database	String	TaurusDB database. The value can contain 3 to 1024 characters.
target_database	String	Destination database. The value can contain 3 to 128 characters. Only uppercase letters, lowercase letters, digits, and underscores (_) are allowed.
task_name	String	Synchronization task name. The value can contain 3 to 128 characters. Only uppercase letters, lowercase letters, digits, and underscores (_) are allowed.
status	String	Current status. <ul style="list-style-type: none">• Yes: normal• No: abnormal
stage	String	Synchronization stage. <ul style="list-style-type: none">• wait: waiting for synchronization• incremental: incremental synchronization• full: full synchronization• cancelled: synchronization cancelled• paused: synchronization paused
percentage	String	Progress percentage.
catchup_stage	String	Catchup stage. <ul style="list-style-type: none">• wait: waiting for synchronization• incremental: incremental synchronization• full: full synchronization• cancelled: synchronization cancelled• paused: synchronization paused
catchup_percentage	String	Catchup progress percentage.

Status code: 400**Table 4-1056** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500**Table 4-1057** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying the first 10 synchronization tasks on the first page

```
GET https://{localhost}/v3/{project_id}/instances/{instance_id}/starrocks/databases/replication?offset=1&limit=10
```

Example Response**Status code: 200**

Success.

```
{
  "total_count": 1,
  "replications": [ {
    "source_database": "source_database",
    "target_database": "target_database",
    "task_name": "task_name",
    "status": "Yes",
    "stage": "Incremental",
    "percentage": 100,
    "catchup_stage": null,
    "catchup_percentage": 0
  } ],
  "ext_text": null
}
```

Status code: 400

Client error.

```
{
  "error_code": "DBS.200022",
  "error_msg": "Instance not found."
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.15.16 Checking Database Configurations for HTAP Data Synchronization

Function

This API is used to check database configurations for HTAP data synchronization. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

POST /v3/{project_id}/instances/{instance_id}/starrocks/databases/replication/database-config-check

Table 4-1058 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	StarRocks instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-1059 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	Yes	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Table 4-1060 Request body parameters

Parameter	Mandatory	Type	Description
source_instance_id	No	String	TaurusDB instance ID.
source_node_id	No	String	Read replica ID. If this parameter is left blank, the ID of the primary node is used.
source_database_name	No	String	Name of the TaurusDB database. The value can contain 3 to 1024 characters. Only uppercase letters, lowercase letters, digits, and underscores (_) are allowed.
target_database_name	No	String	Name of the destination database. The value can contain 3 to 128 characters. Only uppercase letters, lowercase letters, digits, and underscores (_) are allowed.
task_name	No	String	Synchronization task name. The value can contain 3 to 128 characters. Only uppercase letters, lowercase letters, digits, and underscores (_) are allowed.
db_configs	No	Array of DbConfig objects	Database configurations.
table_repl_config	No	TableReplConfig object	Table configurations.

Table 4-1061 DbConfig

Parameter	Mandatory	Type	Description
param_name	No	String	Parameter name.
value	No	String	Parameter value.

Table 4-1062 TableReplConfig

Parameter	Mandatory	Type	Description
repl_type	No	String	Table synchronization type. <ul style="list-style-type: none"> • include_tables: whitelist • exclude_tables: blacklist
repl_scope	No	String	Table synchronization scope. <ul style="list-style-type: none"> • all: all tables • part: some tables
tables	No	Array of strings	Tables listed on the whitelist or blacklist.

Response Parameters

Status code: 200

Table 4-1063 Response body parameters

Parameter	Type	Description
source_database_name	String	Name of the destination database. The value can contain 3 to 128 characters. Only uppercase letters, lowercase letters, digits, and underscores (_) are allowed.
source_db_config_check_results	Array of DbConfigCheckResult objects	Check results of the TaurusDB database configurations.
target_database_name	String	Name of the destination database. The value can contain 3 to 128 characters. Only uppercase letters, lowercase letters, digits, and underscores (_) are allowed.
target_db_config_check_results	Array of DbConfigCheckResult objects	Check result of the destination database configurations.
task_name	String	Synchronization task name. The value can contain 3 to 128 characters. Only uppercase letters, lowercase letters, digits, and underscores (_) are allowed.

Table 4-1064 DbConfigCheckResult

Parameter	Type	Description
param_name	String	Parameter name. The name can contain 3 to 128 characters.
value	String	Parameter value. The value can contain 1 to 64 characters.
check_result	String	Check result. Values: <ul style="list-style-type: none"> • success • fail

Status code: 400

Table 4-1065 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-1066 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

POST https://{localhost}/v3/{project_id}/instances/{instance_id}/starrocks/databases/replication/database-config-check

```
{
  "source_database_name": "source_database_name",
  "target_database_name": "target_database_name",
  "db_configs": [ {
    "param_name": "enable_chunk_level_dump",
    "value": "false"
  }, {
    "param_name": "snapshot_with_lock",
    "value": "true"
  }, {
    "param_name": "sync_commit_interval_ms",
    "value": "5000"
  }, {
```

```
"param_name": "max_sync_commit_rows",
"value": "500000"
}, {
"param_name": "max_sync_commit_bytes",
"value": "268435456"
}, {
"param_name": "max_full_sync_task_threads_num",
"value": "1"
}, {
"param_name": "max_rows_per_chunk",
"value": "0"
}, {
"param_name": "max_bytes_per_chunk",
"value": "268435456"
}, {
"param_name": "binlog_expire_logs_seconds",
"value": "0"
}
],
"table_replconfig": {
"repl_type": "include_tables",
"repl_scope": "all",
"tables": [ ]
},
"source_instance_id": "source_instance_id",
"source_node_id": "source_node_id"
}
```

Example Response

Status code: 200

Success.

```
{
"source_database_name": "source_database_name",
"target_database_name": "",
"source_db_config_check_results": [ {
"param_name": "enable_chunk_level_dump",
"value": "false",
"check_result": "success"
}, {
"param_name": "snapshot_with_lock",
"value": "true",
"check_result": "success"
} ],
"target_db_config_check_results": [ ]
}
```

Status code: 400

Client error.

```
{
"error_code": "DBS.200022",
"error_msg": "Instance not found."
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.15.17 Querying Configurations of a StarRocks Data Synchronization Task

Function

This API is used to query configurations of a StarRocks data synchronization task. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/instances/{instance_id}/starrocks/databases/replication/configuration

Table 4-1067 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	StarRocks instance ID, which is compliant with the UUID format.

Table 4-1068 Query parameters

Parameter	Mandatory	Type	Description
task_name	Yes	String	Name of the data synchronization task. The value can contain 3 to 128 characters. Only uppercase letters, lowercase letters, digits, and underscores (_) are allowed.

Request Parameters

Table 4-1069 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	Yes	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Response Parameters

Status code: 200

Table 4-1070 Response body parameters

Parameter	Type	Description
source_instance_id	String	TaurusDB instance ID.
source_node_id	String	TaurusDB node ID.
database_info	DataBaseInfo object	TaurusDB database configuration information.
table_infos	Array of TableConfigCheckResult objects	Table configurations.
table_repl_config	TableReplConfig object	Table synchronization configurations.
new_table_repl_config	TableReplConfig object	Updated table synchronization configurations.
target_database_name	String	Name of the destination database. The value can contain 3 to 128 characters. Only uppercase letters, lowercase letters, digits, and underscores (_) are allowed.

Parameter	Type	Description
is_tables_change	Boolean	Whether there is any change to the synchronization scope (tables to be synchronized).
last_error_of_alter_table	String	Exception about the latest ALTER TABLE operation.

Table 4-1071 DataBaseInfo

Parameter	Type	Description
database_name	String	Database name.
db_config_check_results	Array of DbConfigCheckResult objects	Database configuration check result.

Table 4-1072 DbConfigCheckResult

Parameter	Type	Description
param_name	String	Parameter name. The name can contain 3 to 128 characters.
value	String	Parameter value. The value can contain 1 to 64 characters.
check_result	String	Check result. Values: <ul style="list-style-type: none"> • success • fail

Table 4-1073 TableConfigCheckResult

Parameter	Type	Description
table_name	String	Table name. <ul style="list-style-type: none"> • Minimum length: 2 characters • Maximum length: 1024 characters
table_config	String	Table configuration item. <ul style="list-style-type: none"> • Minimum length: 2 characters • Maximum length: 1024 characters

Parameter	Type	Description
check_result	String	Check result. Value: success or fail <ul style="list-style-type: none"> • Minimum length: 2 characters • Maximum length: 10 characters

Table 4-1074 TableReplConfig

Parameter	Type	Description
repl_type	String	Table synchronization type. <ul style="list-style-type: none"> • include_tables: whitelist • exclude_tables: blacklist
repl_scope	String	Table synchronization scope. <ul style="list-style-type: none"> • all: all tables • part: some tables
tables	Array of strings	Tables listed on the whitelist or blacklist.

Status code: 400

Table 4-1075 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-1076 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying configurations of the data synchronization task **taskName**

```
GET https://{localhost}/v3/{project_id}/instances/{instance_id}/starrocks/databases/replication/configuration?task_name=taskName
```

Example Response

Status code: 200

Success.

```
{
  "source_instance_id": "source_instance_id",
  "target_database_name": "target_database_name",
  "source_node_id": "source_node_id",
  "database_info": {
    "database_name": "database_name",
    "db_config_check_results": [ {
      "param_name": "default_isolation_level",
      "value": "QUERY_SNAPSHOT",
      "check_result": "success"
    }, {
      "param_name": "enable_snapshots",
      "value": "true",
      "check_result": "failed"
    } ]
  },
  "table_info": [ ],
  "table_repl_config": {
    "repl_type": "exclude_tables",
    "repl_scope": "all",
    "tables": [ ]
  },
  "new_table_repl_config": { },
  "is_tables_change": false,
  "last_error_of_alter_table": ""
}
```

Status code: 400

Client error.

```
{
  "error_code": "DBS.200022",
  "error_msg": "Instance not found."
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.15.18 Querying Database Parameter Settings for StarRocks Data Synchronization

Function

This API is used to query database parameter settings for StarRocks data synchronization. Before calling this API:

- Learn how to [authorize and authenticate](#) it.

- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/instances/{instance_id}/starrocks/databases/replication/
database-parameters

Table 4-1077 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	StarRocks instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-1078 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	Yes	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Response Parameters

Status code: 200

Table 4-1079 Response body parameters

Parameter	Type	Description
db_parameters	Array of DbParameters objects	Database parameter information.

Table 4-1080 DbParameter

Parameter	Type	Description
param_name	String	Parameter name.
data_type	String	Parameter type.
default_value	String	Default parameter value.
value_range	String	Parameter value range.
description	String	Parameter description.

Status code: 400

Table 4-1081 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-1082 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying database parameter settings for data synchronization of a StarRocks instance with instance ID specified

```
GET https://{localhost}/v3/{project_id}/instances/{instance_id}/starrocks/databases/replication/database-parameters
```

Example Response

Status code: 200

Success.

```
{
  "db_parameters": [ {
    "param_name": "enable_chunk_level_dump",
    "data_type": "String",
    "default_value": "false",
    "value_range": "true|false",
    "description": "Whether to enable shard replication."
  }, {
    "param_name": "snapshot_with_lock",
    "data_type": "String",
    "default_value": "true",
    "value_range": "true|false",
    "description": "Whether a lock is added when a full snapshot is obtained. The default value is true."
  }, {
    "param_name": "sync_commit_interval_ms",
    "data_type": "Integer",
    "default_value": "5000",
    "value_range": "1000-60000",
    "description": "Timeout interval for batch commit. Data is committed when the timeout interval is
reached or the buffer is full."
  }, {
    "param_name": "max_sync_commit_rows",
    "data_type": "Integer",
    "default_value": "500000",
    "value_range": "500000-2000000",
    "description": "Maximum number of rows allowed for each commit."
  }, {
    "param_name": "max_sync_commit_bytes",
    "data_type": "Integer",
    "default_value": "268435456",
    "value_range": "10485760-1610612736",
    "description": "Maximum number of bytes allowed for each commit."
  }, {
    "param_name": "max_full_sync_task_threads_num",
    "data_type": "Integer",
    "default_value": "1",
    "value_range": "1-2",
    "description": "Maximum threads allowed for full synchronization."
  }, {
    "param_name": "max_rows_per_chunk",
    "data_type": "Integer",
    "default_value": "0",
    "value_range": "0-1000000",
    "description": "Maximum number of rows per shard."
  }, {
    "param_name": "max_bytes_per_chunk",
    "data_type": "Integer",
    "default_value": "268435456",
    "value_range": "33554432-1073741824",
    "description": "Maximum number of bytes per shard."
  }, {
    "param_name": "binlog_expire_logs_seconds",
    "data_type": "Integer",
    "default_value": "86400",
    "value_range": "0-604800",
    "description": "Binlog retention period, which must be no greater than that of TaurusDB. The value 0
indicates that the retention period is not limited."
  } ]
}
```

Status code: 400

Client error.

```
{
  "error_code" : "DBS.200022",
  "error_msg" : "Instance not found."
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.15.19 Querying Databases of a StarRocks Instance

Function

This API is used to query databases of a StarRocks instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/instances/{instance_id}/starrocks/databases

Table 4-1083 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	StarRocks instance ID, which is compliant with the UUID format.

Table 4-1084 Query parameters

Parameter	Mandatory	Type	Description
limit	No	String	Number of records to be queried.

Parameter	Mandatory	Type	Description
offset	No	String	Index offset. If offset is set to N , the resource query starts from the $N+1$ piece of data. If the value is set to 0 , indicating that the query starts from the first piece of data. The value must be a number but cannot be a negative number.
database_name	No	String	Name of the database to be queried. Fuzzy search is supported. The value can contain 3 to 128 characters. Only uppercase letters, lowercase letters, digits, and underscores (_) are allowed.

Request Parameters

Table 4-1085 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	Yes	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Response Parameters

Status code: 200

Table 4-1086 Response body parameters

Parameter	Type	Description
databases	Array of strings	Database name.

Parameter	Type	Description
total_count	Integer	Number of databases.
timestamp	Integer	Query timestamp.

Status code: 400

Table 4-1087 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-1088 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying the first 10 databases of a StarRocks instance with instance ID specified

```
GET https://{localhost}/v3/{project_id}/instances/{instance_id}/starrocks/databases?
limit=10&offset=1&database_name=
```

Example Response

Status code: 200

Success.

```
{
  "databases": [ "INFORMATION_SCHEMA", "connections_db1_08759", "connections_db1_31465",
  "default", "information_schema", "system" ],
  "total_count": 6,
  "timestamp": 1706257484
}
```

Status code: 400

Client error.

```
{
  "error_code": "DBS.200022",
  "error_msg": "Instance not found."
}
```


Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.15.20 Querying Database Accounts

Function

This API is used to query database accounts of a StarRocks instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/instances/{instance_id}/starrocks/users

Table 4-1089 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	StarRocks instance ID, which is compliant with the UUID format.

Table 4-1090 Query parameters

Parameter	Mandatory	Type	Description
user_name	No	String	Database account.
limit	Yes	Integer	Number of records to be queried. The value cannot be a negative number. The minimum value is 1 and the maximum value is 100 .

Parameter	Mandatory	Type	Description
offset	Yes	Integer	Index offset. If offset is set to N , the resource query starts from the $N+1$ piece of data. If the value is set to 0 , indicating that the query starts from the first piece of data. The value must be a number but cannot be a negative number.

Request Parameters

Table 4-1091 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> en-us zh-cn

Response Parameters

Status code: 200

Table 4-1092 Response body parameters

Parameter	Type	Description
user_details	Array of user_details objects	Database account information.
total_count	Integer	Number of database accounts.

Table 4-1093 user_details

Parameter	Type	Description
user_name	String	Username of the database account.
data_bases	Array of strings	Authorized databases.
dml	Integer	DML permissions. <ul style="list-style-type: none"> • 0: read/write permissions • 1: read-only permissions • 2: read-only and configuration permissions • 3: read/write and configuration permissions
ddl	Integer	Whether DDL permissions are granted. <ul style="list-style-type: none"> • 0: No • 1: Yes

Status code: 400

Table 4-1094 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-1095 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying 10 database accounts

```
GET https://{endpoint}/v3/23a50154cf494ec9ad6883979a12db0a/instances/54e42160670e48e789af7075e1efea1fin16/starrocks/users?limit=10
```

Example Response

Status code: 200

Success.

```
{
  "user_details": [ {
    "user_name": "root",
    "databases": [ "*" ],
    "dml": 2,
    "ddl": 0
  }, {
    "user_name": "user_test",
    "databases": [ "*" ],
    "dml": 2,
    "ddl": 0
  } ],
  "total_count": 2
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.15.21 Creating a Database Account

Function

This API is used to create a database account. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

POST /v3/{project_id}/instances/{instance_id}/starrocks/users

Table 4-1096 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	StarRocks instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-1097 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Table 4-1098 Request body parameters

Parameter	Mandatory	Type	Description
user_name	Yes	String	Username of the database account. The username can be 2 to 32 characters long. It must start with a lowercase letter and end with a lowercase letter or digit. Only lowercase letters, digits, and underscores (_) are allowed.
password	Yes	String	Account password. The password must: <ul style="list-style-type: none">• Consist of 8 to 32 characters.• Be different from the username or the username spelled backwards.• Contain at least three types of the following characters: uppercase letters, lowercase letters, digits, and special characters ~! @#%^*-_+=?,
databases	Yes	Array of strings	List of databases.

Parameter	Mandatory	Type	Description
dml	No	Integer	DML permissions. The default value is 2. Values: <ul style="list-style-type: none"> • 0: read/write permission • 1: read-only permission • 2: read-only and configuration permissions • 3: read/write and configuration permissions
ddl	No	Integer	Whether DDL permissions are granted. The default value is 0. Values: <ul style="list-style-type: none"> • 0: No • 1: Yes

Response Parameters

Status code: 200

Table 4-1099 Response body parameters

Parameter	Type	Description
result	String	Request result.

Status code: 400

Table 4-1100 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-1101 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Creating a database account

```
POST https://{endpoint}/v3/23a50154cf494ec9ad6883979a12db0a/instances/54e42160670e48e789af7075e1efea1fin16/starrocks/users
{
  "userName" : "user_test",
  "dml" : 2,
  "ddl" : 0,
  "passWord" : "Rds_1234",
  "dataBases" : [ "INFORMATION_SCHEMA", "default" ]
}
```

Example Response

Status code: 200

Success.

```
{
  "result" : "SUCCESS"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.15.22 Deleting a Database Account

Function

This API is used to delete a database account of a StarRocks instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

DELETE /v3/{project_id}/instances/{instance_id}/starrocks/users

Table 4-1102 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .

Parameter	Mandatory	Type	Description
instance_id	Yes	String	StarRocks instance ID, which is compliant with the UUID format.

Table 4-1103 Query parameters

Parameter	Mandatory	Type	Description
user_name	Yes	String	Username of the database account.

Request Parameters

Table 4-1104 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain the value, call the API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Response Parameters

Status code: 200

Table 4-1105 Response body parameters

Parameter	Type	Description
result	String	Request result.

Status code: 400

Table 4-1106 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500**Table 4-1107** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Deleting a database account

```
DELETE https://{endpoint}/v3/23a50154cf494ec9ad6883979a12db0a/instances/54e42160670e48e789af7075e1efea1fin16/starrocks/user?user_name=user_test
```

Example Response

Status code: 200

Success.

```
{
  "result" : "SUCCESS"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.15.23 Changing the Password of a Database Account

Function

This API is used to change the password of a database account for a StarRocks instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

PUT /v3/{project_id}/instances/{instance_id}/starrocks/users/password

Table 4-1108 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	StarRocks instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-1109 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain the value, call the API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Table 4-1110 Request body parameters

Parameter	Mandatory	Type	Description
user_name	Yes	String	Username of the database account.

Parameter	Mandatory	Type	Description
password	Yes	String	Account password. The password must: <ul style="list-style-type: none">• Consist of 8 to 32 characters.• Be different from the username or the username spelled backwards.• Contain at least three types of the following characters: uppercase letters, lowercase letters, digits, and special characters ~!@#%^*_-=+?,

Response Parameters

Status code: 200

Table 4-1111 Response body parameters

Parameter	Type	Description
result	String	Request result.

Status code: 400

Table 4-1112 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-1113 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Changing the password of a database account

```
PUT https://{endpoint}/v3/23a50154cf494ec9ad6883979a12db0a/instances/54e42160670e48e789af7075e1efea1fin16/starrocks/users/password
{
  "user_name" : "user_test",
  "password" : "Tang_1234"
}
```

Example Response

Status code: 200

Success.

```
{
  "result" : "SUCCESS"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.15.24 Changing Permissions of a Database Account

Function

This API is used to change permissions of a database account for a StarRocks instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

PUT /v3/{project_id}/instances/{instance_id}/starrocks/users/permission

Table 4-1114 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	StarRocks instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-1115 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain the value, call the API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Table 4-1116 Request body parameters

Parameter	Mandatory	Type	Description
user_name	Yes	String	Username of the database account.
databases	No	Array of strings	List of databases.
dml	No	Integer	DML permissions. Values: <ul style="list-style-type: none"> • 0: read/write permission • 1: read-only permission • 2: read-only and configuration permissions • 3: read/write and configuration permissions
ddl	No	Integer	Whether DDL permissions are granted. Values: <ul style="list-style-type: none"> • 0: No • 1: Yes

Response Parameters

Status code: 200

Table 4-1117 Response body parameters

Parameter	Type	Description
result	String	Request result.

Status code: 400

Table 4-1118 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-1119 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Changing permissions of a database account

```
PUT https://{endpoint}/v3/23a50154cf494ec9ad6883979a12db0a/instances/86fd60a5256a4592b957e8e6bb2d1b59in07/starrocks/users/permission
```

```
{
  "userName" : "user_test",
  "dml" : 2,
  "dataBases" : [ "*" ]
}
```

Example Response

Status code: 200

Success.

```
{
  "result" : "SUCCESS"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.16 HTAP (Lightweight Edition)

4.16.1 Deleting a Database Account

Function

This API is used to delete a database account. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

DELETE /v3/{project_id}/instances/{instance_id}/clickhouse/users/{user_name}

Table 4-1120 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	ClickHouse instance ID, which is compliant with the UUID format.
user_name	Yes	String	Database name.

Request Parameters

Table 4-1121 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.

Parameter	Mandatory	Type	Description
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Response Parameters

Status code: 200

Table 4-1122 Response body parameter

Parameter	Type	Description
result	String	Request result.

Status code: 400

Table 4-1123 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-1124 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Deleting a database account

```
DELETE https://{endpoint}/v3/23a50154cf494ec9ad6883979a12db0a/instances/54e42160670e48e789af7075e1efea1fin16/clickhouse/user/user_test
```


Example Response

Status code: 200

Success.

```
{  
  "result" : "SUCCESS"  
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.16.2 Querying Node Information in Error Logs or Slow Query Logs

Function

This API is used to query node information in error logs or slow query logs. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/instances/{instance_id}/clickhouse/nodes

Table 4-1125 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	ClickHouse instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-1126 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> en-us zh-cn

Response Parameters

Status code: 200

Table 4-1127 Response body parameter

Parameter	Type	Description
node_list	Array of node_list objects	ClickHouse instance nodes.

Table 4-1128 node_list

Parameter	Type	Description
node_id	String	ID of a ClickHouse instance node.
node_name	String	Name of a ClickHouse instance node.
role	String	Node role.

Status code: 400

Table 4-1129 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-1130 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying node information in error logs or slow query logs

```
GET https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/28f61af50fc9452aa0ed5ea25c3cc3d3/clickhouse/nodes
```

Example Response

Status code: 200

Success.

```
{
  "node_list": [ {
    "node_id": "f1a5641d62f44803ac38ffefed0e4736no07",
    "node_name": "gauss-htap-node01",
    "role": "slave"
  } ]
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.16.3 Querying Slow Query Logs

Function

This API is used to query slow query logs. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

POST /v3/{project_id}/instances/{instance_id}/clickhouse/slow-logs

Table 4-1131 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	ClickHouse instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-1132 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Table 4-1133 Request body parameters

Parameter	Mandatory	Type	Description
node_id	Yes	String	Instance node ID.
start_time	Yes	String	Start time in the "yyyy-mm-ddThh:mm:ssZ" format. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, if the time zone offset is one hour, the value of Z is +0100 .
end_time	Yes	String	Start time in the "yyyy-mm-ddThh:mm:ssZ" format. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, if the time zone offset is one hour, the value of Z is +0100 .
limit	Yes	Integer	Number of records to be queried.
line_num	No	String	Sequence number of a log event. This parameter is not required for the first query, but is required for subsequent pagination queries. The value can be obtained from the response of the last query.
operate_type	No	String	Operation type of slow query logs.
database	No	String	Database name.

Response Parameters

Status code: 200

Table 4-1134 Response body parameter

Parameter	Type	Description
slow_log_list	Array of slow_log_list objects	Slow query logs.

Table 4-1135 slow_log_list

Parameter	Type	Description
node_id	String	ID of a ClickHouse instance node.
time	String	Execution time of a database statement.
lock_time	String	Lock wait time of a database statement.
rows_sent	Integer	Number of rows in each database statement execution result.
rows_examined	Integer	Number of rows scanned by a database statement.
database	String	Database name.
users	String	Account for executing statements.
query_sample	String	Database execution statements.
type	String	Database statement type.
client_ip	String	IP address.
start_time	String	Time when a database statement is executed.
line_num	String	Sequence number of a log event. This parameter is not required for the first query, but is required for subsequent pagination queries. The value can be obtained from the response of the last query.
count	String	Number of slow query logs.

Status code: 400**Table 4-1136** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-1137 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying slow query logs of the kernel

```
POST https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/86fd60a5256a4592b957e8e6bb2d1b59in07/clickhouse/slow-logs
{
  "node_id" : "aeb9e81135b34197bab8636fc8a1c569no16",
  "start_time" : "2023-12-12T00:14:27+0100",
  "end_time" : "2023-12-12T02:14:27+0100",
  "limit" : "10",
  "line_num" : "1669344916000",
  "operate_type" : "All",
  "database" : "DBS_NODE"
}
```

Example Response

Status code: 200

Success.

```
{
  "slow_log_list" : [ {
    "node_id" : "941d21130b3c4899ad1a752a0945befdno07",
    "time" : "0.000143s",
    "rows_sent" : "10",
    "rows_examined" : "50",
    "database" : "user_center",
    "users" : "admin",
    "query_sample" : "sleep (N);",
    "type" : "1700755200000",
    "client_ip" : "10.1.1.60",
    "start_time" : "2023-08-28T08:22:13.591394+08:00",
    "line_num" : "1669344916000"
  } ]
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.16.4 Enabling or Disabling Show Original Log

Function

This API is used to enable or disable Show Original Log. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

PUT /v3/{project_id}/instances/{instance_id}/clickhouse/slowlog-sensitive

Table 4-1138 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	ClickHouse instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-1139 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Table 4-1140 Request body parameter

Parameter	Mandatory	Type	Description
open_slow_log_switch	Yes	String	Whether to enable or disable Show Original Log.

Response Parameters

Status code: 200

Table 4-1141 Response body parameter

Parameter	Type	Description
open_slow_log_switch	String	Whether to enable or disable Show Original Log.

Status code: 400

Table 4-1142 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-1143 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Disabling Show Original Log

```
POST https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/86fd60a5256a4592b957e8e6bb2d1b59in07/clickhouse/slowlog-sensitive
```

```
{
  "open_slow_log_switch" : "false"
}
```

Example Response

Status code: 200

Success.

```
{  
  "open_slow_log_switch" : "false"  
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.16.5 Querying Whether Show Original Log Is Enabled

Function

This API is used to query whether Show Original Log is enabled. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/instances/{instance_id}/clickhouse/slowlog-sensitive

Table 4-1144 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	ClickHouse instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-1145 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> en-us zh-cn

Response Parameters

Status code: 200

Table 4-1146 Response body parameter

Parameter	Type	Description
open_slow_log_switch	String	Whether to enable or disable Show Original Log.

Status code: 400

Table 4-1147 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-1148 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying whether Show Original Log is enabled

```
GET https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/  
86fd60a5256a4592b957e8e6bb2d1b59in07/clickhouse/slowlog-sensitive
```

Example Response

Status code: 200

Success.

```
{  
  "open_slow_log_switch" : "false"  
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.16.6 Querying LTS Configurations of an Instance

Function

This API is used to query LTS configurations of an instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

```
GET /v3/{project_id}/clickhouse/instances/logs/lts-configs
```

Table 4-1149 URI parameter

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .

Table 4-1150 Query parameters

Parameter	Mandatory	Type	Description
instance_id	No	String	ClickHouse instance ID, which is compliant with the UUID format.
enterprise_project_id	No	String	Enterprise project ID.
instance_name	No	String	Instance name.
limit	No	Integer	Number of records to be queried. The default value is 10 . The value cannot be a negative number. The minimum value is 1 and the maximum value is 100 .
offset	No	Integer	Index offset. The default value is 0 . If offset is set to <i>N</i> , the resource query starts from the <i>N</i> +1 piece of data. If the value is set to 0 , indicating that the query starts from the first piece of data. The value must be a number but cannot be a negative number.

Request Parameters

Table 4-1151 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> en-us zh-cn

Response Parameters

Status code: 200

Table 4-1152 Response body parameters

Parameter	Type	Description
instance_lts_configs	Array of ChInstanceLtsConfigs objects	LTS configurations of an instance.
total_count	Integer	Total number of instances.

Table 4-1153 ChInstanceLtsConfigs

Parameter	Type	Description
lts_configs	Array of ChLtsConfigs objects	LTS configurations of an instance.
instance	instance object	HTAP instance information.

Table 4-1154 ChLtsConfigs

Parameter	Type	Description
log_type	String	Log type.
lts_group_id	String	LTS log group ID.
lts_stream_id	String	LTS log stream ID.
enabled	String	Whether to enable LTS configurations.

Table 4-1155 instance

Parameter	Type	Description
id	String	ClickHouse instance ID.
name	String	Instance name.
mode	String	Primary/standby role of an instance.
engine_name	String	Engine type.
engine_version	String	Engine version.
status	String	Instance status.
enterprise_project_id	String	Enterprise project ID.
enterprise_project_name	String	Enterprise project name.

Status code: 400**Table 4-1156** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-1157 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying LTS configurations of an instance

```
GET https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/logs/clickhouse/lts-configs?instance_id=faf2cbf7f6cb422d83e61dbcc3e87023in07
```

Example Response

Status code: 200

Success.

```
{
  "instance_lts_configs": [ {
    "lts_configs": [ {
      "log_type": "slow_log",
      "lts_group_id": "460d8437-9dcb-47d0-8c56-5758f2042272",
      "lts_stream_id": "bad1ca5d-e347-437f-be89-f2e08ce117b8",
      "enabled": false
    } ],
    "instance": {
      "id": "4c2614fe03ae4ec28184a277b8c00c03in07",
      "name": "gauss-8c01",
      "mode": "Cluster",
      "engine_name": "clickhouse",
      "engine_version": "2.0.48",
      "status": "normal",
      "enterprise_project_id": "0",
      "enterprise_project_name": "string"
    }
  } ],
  "total_count": 1
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.16.7 Creating LTS Configurations in Batches

Function

This API is used to create LTS configurations in batches. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

POST /v3/{project_id}/clickhouse/instances/logs/lts-configs

Table 4-1158 URI parameter

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .

Request Parameters

Table 4-1159 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Table 4-1160 Request body parameter

Parameter	Mandatory	Type	Description
log_configs	Yes	Array of log_configs objects	Log configurations.

Table 4-1161 log_configs

Parameter	Mandatory	Type	Description
instance_id	Yes	String	ClickHouse instance ID, which is compliant with the UUID format.
log_type	Yes	String	Log type. Only slow_log is supported.
lts_group_id	Yes	String	LTS log group ID.
lts_stream_id	Yes	String	LTS log stream ID.

Response Parameters

Status code: 400

Table 4-1162 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-1163 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Creating LTS configurations in batches

```
POST https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/logs/clickhouse/lts-configs
{
  "log_configs": [ {
    "instance_id": "86fd60a5256a4592b957e8e6bb2d1b59in07",
    "log_type": "slow_log",
    "lts_group_id": "460d8437-9dcb-47d0-8c56-5758f2042272",
    "lts_stream_id": "bad1ca5d-e347-437f-be89-f2e08ce117b8"
  } ]
}
```

Example Response

None

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.16.8 Deleting LTS Configurations in Batches

Function

This API is used to delete LTS configurations in batches. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

DELETE /v3/{project_id}/clickhouse/instances/logs/lts-configs

Table 4-1164 URI parameter

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .

Request Parameters

Table 4-1165 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> en-us zh-cn

Table 4-1166 Request body parameter

Parameter	Mandatory	Type	Description
log_configs	Yes	Array of log_configs objects	LTS configurations.

Table 4-1167 log_configs

Parameter	Mandatory	Type	Description
instance_id	Yes	String	ClickHouse instance ID, which is compliant with the UUID format.
log_type	Yes	String	Log type. Only slow_log is supported.

Response Parameters

Status code: 400

Table 4-1168 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-1169 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Deleting LTS configurations in batches

```
DELETE https://{endpoint}/v3/619d3e78f61b4be68bc5aa0b59edcf7b/logs/lts-configs/clickhouse?instance_id=86fd60a5256a4592b957e8e6bb2d1b59in07
```

```
{
  "log_configs": [ {
    "instance_id": "614ff06f72ee46b7949423572dd51e8bin16",
    "log_type": "slow_log"
  } ]
}
```

Example Response

None

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.16.9 Checking Database Configurations for Data Synchronization

Function

This API is used to check database configurations for data synchronization. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

POST /v3/{project_id}/instances/{instance_id}/clickhouse/replication/database-check

Table 4-1170 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	ClickHouse instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-1171 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Table 4-1172 Request body parameters

Parameter	Mandatory	Type	Description
source_instance_id	Yes	String	Source instance ID, which is compliant with the UUID format.
source_node_id	No	String	Source node ID (read replica ID). If this parameter is left blank, the ID of the primary node is used.
source_database_name	Yes	String	Source database name.
db_configs	Yes	Array of ChDatabaseConfigsInfo objects	Database configurations.
table_repl_config	Yes	ChDatabaseTableReplConfigInfo object	Table configurations.

Table 4-1173 ChDatabaseConfigsInfo

Parameter	Mandatory	Type	Description
param_name	Yes	String	Name of the database synchronization configuration parameter. To obtain this value, see Querying Database Parameter Settings for Data Synchronization .
value	Yes	String	Value of the database synchronization configuration parameter.

Table 4-1174 ChDatabaseTableReplConfigInfo

Parameter	Mandatory	Type	Description
repl_type	Yes	String	Table synchronization type. Values: <ul style="list-style-type: none"> • white_list: whitelist. In this case, tables cannot be left blank. • black_list: blacklist. If tables are left blank, all tables are selected.
tables	Yes	Array of strings	Tables listed on the whitelist or blacklist.

Response Parameters

Status code: 200

Table 4-1175 Response body parameters

Parameter	Type	Description
database_name	String	Source database name.
db_config_check_results	Array of ChDatabaseConfigCheckResult objects	Check result of the source database configurations.

Table 4-1176 ChDatabaseConfigCheckResult

Parameter	Type	Description
param_name	String	Name of the database synchronization configuration parameter.
value	String	Value of the database synchronization configuration parameter.
check_result	String	Check result. Values: <ul style="list-style-type: none"> • success • fail

Status code: 400

Table 4-1177 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-1178 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Checking database configurations for data synchronization

POST https://{localhost}/v3/23a50154cf494ec9ad6883979a12db0a/instances/54e42160670e48e789af7075e1efea1fin16/clickhouse/replication/database-check

```
{
  "source_database_name": "blackwhite_0018_61474479",
  "db_configs": [ {
    "param_name": "default_isolation_level",
    "value": "QUERY_SNAPSHOT"
  } ],
  "table_replconfig": {
    "repl_type": "black_list",
    "tables": [ ]
  },
  "source_instance_id": "77aa4096cb824a61b93dab5ca00ecc8fin07",
  "source_node_id": "57bfeacf6e8d4eb685ea907372374b35no07"
}
```

Example Response

Status code: 200

Success.

```
{
  "database_name": "blackwhite_0017_22525694",
  "db_config_check_results": [ {
    "param_name": "default_isolation_level",
    "value": "QUERY_SNAPSHOT",
    "check_result": "success"
  }, {
    "param_name": "enable_snapshots",
    "value": "true",
    "check_result": "success"
  }, {
    "param_name": "enable_chunk_level",
    "value": "true",
    "check_result": "success"
  } ]
}
```

```
}, {
  "param_name": "max_sync_threads",
  "value": "1",
  "check_result": "success"
}, {
  "param_name": "treat_numeric_string_as_integer",
  "value": "false",
  "check_result": "success"
}, {
  "param_name": "min_binlog_expire_logs_seconds",
  "value": "86400",
  "check_result": "success"
}, {
  "param_name": "max_rows_in_buffer",
  "value": "2000000",
  "check_result": "success"
}, {
  "param_name": "max_rows_in_buffers",
  "value": "6000000",
  "check_result": "success"
}, {
  "param_name": "max_bytes_in_buffer",
  "value": "200000000",
  "check_result": "success"
}, {
  "param_name": "max_bytes_in_buffers",
  "value": "600000000",
  "check_result": "success"
}, {
  "param_name": "max_flush_data_time",
  "value": "5000",
  "check_result": "success"
}
}]
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.16.10 Checking Table Configurations for Data Synchronization

Function

This API is used to check table configurations for data synchronization. Before calling this API:

- Learn how to [authorize and authenticate](#) it.

- Obtain the required [region and endpoint](#).

URI

POST /v3/{project_id}/instances/{instance_id}/clickhouse/replication/table-check

Table 4-1179 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	ClickHouse instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-1180 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Table 4-1181 Request body parameters

Parameter	Mandatory	Type	Description
source_instance_id	Yes	String	Source instance ID.

Parameter	Mandatory	Type	Description
source_node_id	No	String	Source node ID (read replica ID). If this parameter is left blank, the ID of the primary node is used.
source_database_name	Yes	String	Source database name.
db_configs	Yes	Array of ChDatabaseConfigsInfo objects	Database configurations.
tables_configs	Yes	Array of ChDatabaseTablesConfigsInfo objects	Table configurations.
table_repl_config	Yes	ChDatabaseTableReplConfigInfo object	Table synchronization configurations.

Table 4-1182 ChDatabaseConfigsInfo

Parameter	Mandatory	Type	Description
param_name	Yes	String	Name of the database synchronization configuration parameter. To obtain this value, see Querying Database Parameter Settings for Data Synchronization .
value	Yes	String	Value of the database synchronization configuration parameter.

Table 4-1183 ChDatabaseTablesConfigsInfo

Parameter	Mandatory	Type	Description
table_name	Yes	String	Table name.
table_config	Yes	String	Table configuration item. The following column operations are allowed: PARTITION BY, COLUMNS, ORDER BY, SAMPLE BY, PRIMARY KEY, and TTL.

Table 4-1184 ChDatabaseTableReplConfigInfo

Parameter	Mandatory	Type	Description
repl_type	Yes	String	Table synchronization type. Values: <ul style="list-style-type: none"> • white_list: whitelist. In this case, tables cannot be left blank. • black_list: blacklist. If tables are left blank, all tables are selected.
tables	Yes	Array of strings	Tables listed on the whitelist or blacklist.

Response Parameters

Status code: 200

Table 4-1185 Response body parameters

Parameter	Type	Description
source_database_name	String	Source database name.
table_config_check_results	Array of ChDatabaseTableConfigCheckResult objects	Table configuration check result.

Table 4-1186 ChDatabaseTableConfigCheckResult

Parameter	Type	Description
table_name	String	Table name.
table_config	String	Table configuration item. The following column operations are allowed: PARTITION BY, COLUMNS, ORDER BY, SAMPLE BY, PRIMARY KEY, and TTL.
check_result	String	Check result.

Status code: 400

Table 4-1187 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-1188 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Checking table configurations for data synchronization

POST https://{localhost}/v3/23a50154cf494ec9ad6883979a12db0a/instances/54e42160670e48e789af7075e1efea1fin16/clickhouse/replication/table-check

```
{
  "source_database_name": "blackwhite_0017_22525694",
  "db_configs": [ {
    "param_name": "default_isolation_level",
    "value": "QUERY_SNAPSHOT"
  }, {
    "param_name": "enable_snapshots",
    "value": "true"
  }, {
    "param_name": "enable_chunk_level",
    "value": "true"
  }, {
    "param_name": "max_sync_threads",
    "value": "1"
  }, {
    "param_name": "treat_numeric_string_as_integer",
    "value": "false"
  }, {
    "param_name": "min_binlog_expire_logs_seconds",
    "value": "86400"
  }, {
    "param_name": "max_rows_in_buffer",
    "value": "2000000"
  }, {
    "param_name": "max_rows_in_buffers",
    "value": "6000000"
  }, {
    "param_name": "max_bytes_in_buffer",
    "value": "200000000"
  }, {
    "param_name": "max_bytes_in_buffers",
    "value": "600000000"
  }, {
    "param_name": "max_flush_data_time",
    "value": "5000"
  }
}
```

```
  }],  
  "tables_configs" : [ {  
    "table_name" : "sbtest100",  
    "table_config" : "ORDER BY id"  
  }],  
  "table_repl_config" : {  
    "repl_type" : "white_list",  
    "tables" : [ ]  
  },  
  "source_instance_id" : "77aa4096cb824a61b93dab5ca00ecc8fin07",  
  "source_node_id" : "57bfeacf6e8d4eb685ea907372374b35no07"  
}
```

Example Response

Status code: 200

Success.

```
{  
  "source_database_name" : "blackwhite_0017_22525694",  
  "table_config_check_results" : [ {  
    "table_name" : "sbtest100",  
    "table_config" : "ORDER BY id",  
    "check_result" : "Check Override Table Failed"  
  } ]  
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.16.11 Querying Databases

Function

This API is used to query databases. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/instances/{instance_id}/clickhouse/databases

Table 4-1189 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	ClickHouse instance ID, which is compliant with the UUID format.

Table 4-1190 Query parameters

Parameter	Mandatory	Type	Description
limit	No	Integer	Number of records to be queried. The default value is 10 . The value cannot be a negative number. The minimum value is 1 and the maximum value is 100 .
offset	No	Integer	Index offset. The default value is 0 . If offset is set to N , the resource query starts from the $N+1$ piece of data. If the value is set to 0 , indicating that the query starts from the first piece of data. The value must be a number but cannot be a negative number.
database_name	No	String	Database name.

Request Parameters

Table 4-1191 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> en-us zh-cn

Response Parameters

Status code: 200

Table 4-1192 Response body parameters

Parameter	Type	Description
databases	Array of strings	Database list.
total_count	Integer	Total number of databases.

Status code: 400

Table 4-1193 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-1194 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying the first 10 databases of an instance

```
GET https://{localhost}/v3/23a50154cf494ec9ad6883979a12db0a/instances/54e42160670e48e789af7075e1efea1fin16/clickhouse/databases?limit=10&offset=1&database_name=
```

Example Response

Status code: 200

Success.

```
{
  "databases": [
    "black_0003_47852503",
    "blackwhite_0017_22525694",
    "blackwhite_0022_05703881",
    "blackwhite_0022_74636728",
    "db_par_00473111",
    "db_par_06456394",
    "db_par_09021212",
    "db_par_12417082",
    "db_par_14323386",
    "db_par_19408230"
  ],
  "total_count": 42,
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.16.12 Querying Data Synchronization Configurations

Function

This API is used to query data synchronization configuration. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/instances/{instance_id}/clickhouse/replication/config

Table 4-1195 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	ClickHouse instance ID, which is compliant with the UUID format.

Table 4-1196 Query parameters

Parameter	Mandatory	Type	Description
database_name	Yes	String	Database name.

Request Parameters

Table 4-1197 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.

Parameter	Mandatory	Type	Description
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Response Parameters

Status code: 200

Table 4-1198 Response body parameters

Parameter	Type	Description
source_instance_id	String	Source instance ID.
source_node_id	String	Node ID of the source instance.
database_info	ChDatabaseConfigResponse object	Database configuration information.
table_infos	Array of ChDatabaseTableConfigCheckResult objects	Table configurations.
table_repl_config	ChDatabaseTableReplConfigInfo object	Table synchronization configurations.
is_tables_change	Boolean	Whether there is any change to the synchronization scope (tables to be synchronized).
new_table_repl_config	ChDatabaseTableReplConfigInfo object	Updated table synchronization configurations.
last_error_of_alter_table	String	Exception about the latest ALTER TABLE operation.

Table 4-1199 ChDatabaseConfigResponse

Parameter	Type	Description
database_name	String	Source database name.
db_config_check_results	Array of ChDatabaseConfigCheckResult objects	Check result of the source database configurations.

Table 4-1200 ChDatabaseConfigCheckResult

Parameter	Type	Description
param_name	String	Name of the database synchronization configuration parameter.
value	String	Value of the database synchronization configuration parameter.
check_result	String	Check result. Values: <ul style="list-style-type: none"> • success • fail

Table 4-1201 ChDatabaseTableConfigCheckResult

Parameter	Type	Description
table_name	String	Table name.
table_config	String	Table configuration item. The following column operations are allowed: PARTITION BY, COLUMNS, ORDER BY, SAMPLE BY, PRIMARY KEY, and TTL.
check_result	String	Check result.

Table 4-1202 ChDatabaseTableReplConfigInfo

Parameter	Type	Description
repl_type	String	Table synchronization type. Values: <ul style="list-style-type: none"> • white_list: whitelist. In this case, tables cannot be left blank. • black_list: blacklist. If tables are left blank, all tables are selected.

Parameter	Type	Description
tables	Array of strings	Tables listed on the whitelist or blacklist.

Status code: 400

Table 4-1203 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-1204 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying the data synchronization configurations of database **db_test**

```
GET https://{localhost}/v3/23a50154cf494ec9ad6883979a12db0a/instances/54e42160670e48e789af7075e1efea1fin16/clickhouse/replication/config?database_name=db_test
```

Example Response

Status code: 200

Success.

```
{
  "source_instance_id": "77aa4096cb824a61b93dab5ca00ecc8fin07",
  "source_node_id": "57bfeacf6e8d4eb685ea907372374b35no07",
  "database_info": {
    "database_name": "blackwhite_0018_61474479",
    "db_config_check_results": [ {
      "param_name": "default_isolation_level",
      "value": "QUERY_SNAPSHOT",
      "check_result": "success"
    }, {
      "param_name": "enable_snapshots",
      "value": "true",
      "check_result": "success"
    }, {
      "param_name": "enable_chunk_level",
```

```
"value": "true",
"check_result": "success"
}, {
"param_name": "max_sync_threads",
"value": "1",
"check_result": "success"
}, {
"param_name": "treat_numeric_string_as_integer",
"value": "false",
"check_result": "success"
}, {
"param_name": "min_binlog_expire_logs_seconds",
"value": "86400",
"check_result": "success"
}, {
"param_name": "max_rows_in_buffer",
"value": "2000000",
"check_result": "success"
}, {
"param_name": "max_rows_in_buffers",
"value": "6000000",
"check_result": "success"
}, {
"param_name": "max_bytes_in_buffer",
"value": "200000000",
"check_result": "success"
}, {
"param_name": "max_bytes_in_buffers",
"value": "600000000",
"check_result": "success"
}, {
"param_name": "max_flush_data_time",
"value": "5000",
"check_result": "success"
}
}
],
"table_infos": [],
"table_repl_config": {
"repl_type": "black_list",
"tables": []
},
"is_tables_change": false,
"new_table_repl_config": {
"repl_type": null,
"tables": null
},
"last_error_of_alter_table": null
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.16.13 Querying Database Parameter Settings for Data Synchronization

Function

This API is used to query database parameter settings for data synchronization. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/instances/{instance_id}/clickhouse/replication/database-parameter

Table 4-1205 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	ClickHouse instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-1206 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Response Parameters

Status code: 200

Table 4-1207 Response body parameter

Parameter	Type	Description
db_parameters	Array of ChDatabaseParameterInfo objects	Database parameters.

Table 4-1208 ChDatabaseParameterInfo

Parameter	Type	Description
param_name	String	Parameter name.
data_type	String	Parameter type.
default_value	String	Default parameter value.
value_range	String	Parameter value range.
description	String	Parameter description.

Status code: 400

Table 4-1209 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-1210 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying database parameter settings for data synchronization of an instance

```
GET https://{localhost}/v3/23a50154cf494ec9ad6883979a12db0a/instances/  
54e42160670e48e789af7075e1efea1fin16/clickhouse/replication/database-parameter
```

Example Response

Status code: 200

Success.

```
{  
  "db_parameters": [ {  
    "param_name": "default_isolation_level",  
    "data_type": "String",  
    "default_value": "QUERY_SNAPSHOT",  
    "value_range": "READ_COMMITTED|READ_UNCOMMITTED|QUERY_RAW|QUERY_SNAPSHOT",  
    "description": "Controls the default isolation level. This parameter is only suitable for the  
MaterializeMySQL engine. read_uncommitted: MVCC is not supported. read_committed: Transactional  
integrity in queries (including subqueries) is preserved. query_snapshot: Transactional integrity is preserved  
and duplicate and deleted rows are removed at the cost of data freshness."  
  }, {  
    "param_name": "enable_snapshots",  
    "data_type": "String",  
    "default_value": "true",  
    "value_range": "true|false",  
    "description": "Disables or enables snapshots. This parameter can be set to true only when  
mvcc_isolation_level is set to query_snapshot."  
  }, {  
    "param_name": "enable_chunk_level",  
    "data_type": "String",  
    "default_value": "true",  
    "value_range": "true|false",  
    "description": "Enables or disables chunk-level parallel replication."  
  }, {  
    "param_name": "max_sync_threads",  
    "data_type": "Integer",  
    "default_value": "1",  
    "value_range": "1-2",  
    "description": "Controls the maximum number of threads for full replication."  
  }, {  
    "param_name": "treat_numeric_string_as_integer",  
    "data_type": "String",  
    "default_value": "false",  
    "value_range": "true|false",  
    "description": "Controls whether numeric strings are treated as integers during block-level task  
generation during full synchronization."  
  }, {  
    "param_name": "min_binlog_expire_logs_seconds",  
    "data_type": "Integer",  
    "default_value": "86400",  
    "value_range": "0-2592000",  
    "description": "Controls the minimum duration for storing binlogs. If the duration for storing binlogs is  
less than the threshold, a synchronization failure is reported. 0 indicates that the duration is not limited."  
  }, {  
    "param_name": "max_rows_in_buffer",  
    "data_type": "Integer",  
    "default_value": "2000000",  
    "value_range": "1-10000000",  
    "description": "Controls the maximum number of rows of data that is allowed to be cached in memory  
(for a single table and any cache data that cannot be queried). When the number of rows exceeds this  
parameter value, the data will be materialized."  
  }, {  
    "param_name": "max_rows_in_buffers",  
    "data_type": "Integer",  
    "default_value": "6000000",
```

```

    "value_range" : "1-10000000",
    "description" : "Controls the maximum number of rows of data that is allowed to be cached in memory
(for databases and cache data that cannot be queried). When the number of rows exceeds this parameter
value, the data will be materialized."
  }, {
    "param_name" : "max_bytes_in_buffer",
    "data_type" : "Integer",
    "default_value" : "200000000",
    "value_range" : "1-1000000000",
    "description" : "Controls the maximum number of bytes of data that is allowed to be cached in memory
(for a single table and any cache data that cannot be queried). When the number of bytes exceeds the
parameter value, the data will be materialized."
  }, {
    "param_name" : "max_bytes_in_buffers",
    "data_type" : "Integer",
    "default_value" : "600000000",
    "value_range" : "1-1000000000",
    "description" : "Controls the maximum number of bytes of data that is allowed to be cached in memory
(for databases and any cache data that cannot be queried). When the number of bytes exceeds the
parameter value, the data will be materialized."
  }, {
    "param_name" : "max_flush_data_time",
    "data_type" : "Integer",
    "default_value" : "5000",
    "value_range" : "1-10000",
    "description" : "Controls how long that data is cached in the memory, in milliseconds."
  }
}

```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.16.14 Creating an Instance

Function

This API is used to create an instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

POST /v3/{project_id}/instances/{instance_id}/clickhouse

Table 4-1211 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	TaurusDB instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-1212 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> en-us zh-cn

Table 4-1213 Request body parameters

Parameter	Mandatory	Type	Description
name	Yes	String	ClickHouse instance name. The value: <ul style="list-style-type: none"> Consists of 4 to 64 characters. Must start with a letter and can contain letters, digits, hyphens (-), and underscores (_). Cannot contain other special characters.

Parameter	Mandatory	Type	Description
engine	Yes	ClickHouseEngineInfo object	Engine information.
ha	Yes	ha object	Deployment information.
flavor_id	Yes	String	Node specification ID. To obtain this value, see Querying Specifications of an HTAP Instance .
db_root_pwd	Yes	String	Password of user root . The value: <ul style="list-style-type: none"> • Consists of 8 to 32 characters. • Must contain at least three types of the following characters: uppercase letters, lowercase letters, digits, and special characters (~!@#/%^*-_ = +?,)
az_mode	Yes	String	AZ type. Values: <ul style="list-style-type: none"> • single: single AZ • double: multiple AZs
volume	Yes	volume object	Storage specifications.
az_code	Yes	String	AZ code. If mode in ha is set to Ha , enter multiple AZs and separate them with commas (,), for example, cn-southwest-244b,cn-southwest-244a .
time_zone	No	String	Time zone. The default value is the time zone of the TaurusDB instance.
tags_info	Yes	tags_info object	Tag value.
pay_info	No	pay_info object	Payment information.

Table 4-1214 ClickHouseEngineInfo

Parameter	Mandatory	Type	Description
type	Yes	String	DB engine type. Only click-house is supported.
version	Yes	String	Database version with only one digit. To obtain this value, see Querying HTAP Engine Resources .

Table 4-1215 ha

Parameter	Mandatory	Type	Description
mode	Yes	String	Deployment mode. Values: <ul style="list-style-type: none"> • Single: single-node • Ha: primary/standby

Table 4-1216 volume

Parameter	Mandatory	Type	Description
io_type	Yes	String	Disk I/O type. Values: <ul style="list-style-type: none"> • SSD: ultra-high I/O • ESSD: extreme SSD
capacity_in_gb	Yes	Integer	Disk capacity. Value range: 50 GB to 32,000 GB.

Table 4-1217 tags_info

Parameter	Mandatory	Type	Description
sys_tags	Yes	Array of sys_tags objects	System tags.

Table 4-1218 sys_tags

Parameter	Mandatory	Type	Description
key	Yes	String	Tag key.
value	Yes	String	Tag value.

Table 4-1219 pay_info

Parameter	Mandatory	Type	Description
pay_model	No	String	Billing mode. The default value is 0 . Values: Values: <ul style="list-style-type: none"> • 0: pay-per-use billing • 1: yearly/monthly billing
order_id	No	String	Yearly/monthly order ID.
period	No	Integer	Yearly/monthly subscription period.
period_type	No	Integer	Subscription period type. Values: <ul style="list-style-type: none"> • 2: monthly • 3: yearly
is_auto_renew	No	Integer	Whether to automatically renew the yearly/monthly subscription. Values: <ul style="list-style-type: none"> • 1: auto-renewal enabled • 0: auto-renewal disabled

Response Parameters

Status code: 202

Table 4-1220 Response body parameters

Parameter	Type	Description
instance	CreateChInstanceInfo object	DB instance information.
job_id	String	Job ID.

Table 4-1221 CreateChInstanceInfo

Parameter	Type	Description
id	String	Instance ID.
az_code	String	AZ.

Parameter	Type	Description
az_mode	String	AZ type. Values: <ul style="list-style-type: none"> ● single: single AZ ● double: multiple AZs
name	String	Instance name.
engine	ClickHouseEngineInfo object	Engine information.
vpc_id	String	VPC ID.
security_group_id	String	Security group ID.
subnet_id	String	Subnet ID.
db_user	String	Database user.
port	Integer	Database port. Value range: 0–65535.
ha_mode	String	Deployment mode. Values: <ul style="list-style-type: none"> ● Single: single-node ● Ha: primary/standby
pay_info	pay_info object	Billing information.
ssl_option	Boolean	Whether to enable SSL.
status	String	Instance status. Values: <ul style="list-style-type: none"> ● creating ● normal ● abnormal ● createfailed ● deleted
region	String	Region where the instance is deployed.
tags_info	tags_info object	Instance tags.

Table 4-1222 ClickHouseEngineInfo

Parameter	Type	Description
type	String	DB engine type. Only click-house is supported.

Parameter	Type	Description
version	String	Database version with only one digit. To obtain this value, see Querying HTAP Engine Resources .

Table 4-1223 pay_info

Parameter	Type	Description
pay_model	String	Billing mode. The default value is 0 . Values: Values: <ul style="list-style-type: none"> • 0: pay-per-use billing • 1: yearly/monthly billing
order_id	String	Yearly/monthly order ID.
period	String	Yearly/monthly subscription period.
period_type	String	Subscription period type. Values: <ul style="list-style-type: none"> • 2: monthly • 3: yearly
is_auto_renew	String	Whether to automatically renew the yearly/monthly subscription. Values: <ul style="list-style-type: none"> • 1: auto-renewal enabled • 0: auto-renewal disabled

Table 4-1224 tags_info

Parameter	Type	Description
tags	Array of tags objects	User tags.
sys_tags	Array of sys_tags objects	System tags.

Table 4-1225 tags

Parameter	Type	Description
key	String	Tag key.
value	String	Tag value.

Table 4-1226 sys_tags

Parameter	Type	Description
key	String	Tag key.
value	String	Tag value.

Status code: 400

Table 4-1227 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-1228 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Creating a ClickHouse instance

POST https://{endpoint}/v3/23a50154cf494ec9ad6883979a12db0a/instances/
40dc4c5729f14aad893e2dcd5baf6a15in07/clickhouse

```
{
  "name": "htap-cfd5",
  "engine": {
    "type": "click-house",
    "version": "1"
  },
  "ha": {
    "mode": "Single"
  },
  "flavor_id": "b44cfde6-d250-313c-8d7a-cd216f071658",
  "db_root_pwd": "Rds_1234",
  "az_mode": "single",
  "volume": {
    "io_type": "ESSD",
    "capacity_in_gb": 40
  },
  "az_code": "cn-southwest-244a",
  "time_zone": "UTC+08:00",
  "tags_info": {
    "sys_tags": [ {
```

```
"key": "_sys_enterprise_project_id",  
"value": "0"  
}]  
}  
}
```

Example Response

Status code: 202

Success.

```
{  
  "instance": {  
    "id": "2cdec02d8c4a4c88aeca08684dd8076in16",  
    "az_code": "cn-southwest-244a",  
    "az_mode": "double",  
    "name": "htap-cfd5",  
    "engine": {  
      "type": "click-house",  
      "version": "1"  
    },  
    "vpc_id": "467f1291-994f-4d3a-9db6-d4c563218df5",  
    "security_group_id": "3dc780b1-9d92-4850-9b98-be248e1b5962",  
    "subnet_id": "d99cd68c-0067-436d-869e-d32e902d0074",  
    "db_user": "root",  
    "port": null,  
    "ha_mode": "Single"  
    "pay_info": {  
      "pay_model": "0",  
      "order_id": null,  
      "period": null,  
      "period_type": null,  
      "is_auto_renew": null,  
    },  
    "ssl_option": false,  
    "status": "creating",  
    "region": "cn-southwest-244",  
    "tags_info": {  
      "tags": [],  
      "sys_tags": [  
        {  
          "key": "_sys_enterprise_project_id",  
          "value": "0"  
        }  
      ]  
    }  
  },  
  "job_id": "76078f0b-5162-45c8-b95f-4c1afd37536c",  
}
```

Status Code

Status Code	Description
202	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.16.15 Deleting an Instance

Function

This API is used to delete an instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

```
DELETE /v3/{project_id}/instances/{instance_id}/clickhouse/  
{clickhouse_instance_id}
```

Table 4-1229 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	TaurusDB instance ID, which is compliant with the UUID format.
clickhouse_instance_id	Yes	String	ClickHouse instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-1230 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.

Parameter	Mandatory	Type	Description
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Response Parameters

Status code: 200

Table 4-1231 Response body parameter

Parameter	Type	Description
job_id	String	ID of the created task.

Status code: 400

Table 4-1232 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-1233 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Deleting a ClickHouse instance

```
DELETE https://{endpoint}/v3/23a50154cf494ec9ad6883979a12db0a/instances/  
fb632d1d531a4107804f0f082581810fin07/clickhouse/df3ae779e2ad4993a03ccd7a81240125in16
```

Example Response

None

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.16.16 Querying Instance Details

Function

This API is used to query instance details. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/instances/{instance_id}/clickhouse/{clickhouse_instance_id}

Table 4-1234 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	TaurusDB instance ID, which is compliant with the UUID format.
clickhouse_instance_id	Yes	String	ClickHouse instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-1235 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Response Parameters

Status code: 200**Table 4-1236** Response body parameter

Parameter	Type	Description
instance	instance object	DB instance information.

Table 4-1237 instance

Parameter	Type	Description
id	String	Instance ID.
name	String	Instance name.
project_id	String	Project ID of a tenant in a region.
public_ip	String	Public IP address.
can_enable_public_access	Boolean	Whether the instance can be accessed from a public network.
current_backup_node_id	String	ID of the backup node.

Parameter	Type	Description
cluster_mode	String	Deployment mode. Values: <ul style="list-style-type: none">• Single: single-node• Ha: primary/standby
status	String	Instance status.
is_frozen	Integer	Whether the instance is frozen. Values: <ul style="list-style-type: none">• 0: not frozen• 1: frozen
frozen_time	String	Frozen time.
db_user	String	Default user.
bak_period	String	Backup cycle.
bak_keep_day	Integer	Backup retention days.
bak_expected_start_time	String	Estimated backup start time.
datastore_version_id	String	DB version ID.
datastore_version	String	DB version.
datastore_type	String	DB engine.
create_at	Integer	Instance creation time.
update_at	Integer	Instance update time.
delete_at	Integer	Instance deletion time.
db_port	String	Database port. Value range: 0–65535.
param_group	param_group object	Parameter template.
actions	Array of ChQueryActionInfo objects	Instance actions.
create_fail_error_code	String	Error code for an instance creation failure.
groups	Array of groups objects	Instance groups.
ops_window	ops_window object	Instance operation time window.

Parameter	Type	Description
tags_info	tags_info object	Instance tags.
time_zone	String	Time zone.
backup_used_space	String	Used backup space.
az_mode	String	AZ type. Values: <ul style="list-style-type: none"> ● single: single AZ ● double: multiple AZs
master_az_code	String	Primary AZ.
enterprise_project_id	String	Enterprise project ID.
port_info	port_info object	Port information.
volume_code	String	Disk specification code.
support_data_replication	Boolean	Whether replicas are supported.
new_version_available	Boolean	Whether there is a new DB version available.
ssl_option	Boolean	Whether to enable SSL.
dedicated_resource_id	String	ID of the dedicated resource pool.
pay_model	String	Payment method. Values: <ul style="list-style-type: none"> ● 0: pay-per-use ● 1: yearly/monthly

Table 4-1238 param_group

Parameter	Type	Description
id	String	Parameter ID.
name	String	Parameter name.

Table 4-1239 ChQueryActionInfo

Parameter	Type	Description
id	String	Instance action ID.
action	String	Instance action name.
object_id	String	Object ID of the instance action.
type	String	Instance action type.
job_id	String	Task ID of the instance action.
status	String	Instance action status.
created_at	Integer	Time when an instance action was created.
updated_at	Integer	Time when an instance action was updated.

Table 4-1240 groups

Parameter	Type	Description
id	String	Group ID.
name	String	Group name.
group_type_name	String	Instance group type name. Only clickhouse is supported.
nodes	Array of ClickHouseNodeInfo objects	Instance node information.

Table 4-1241 ClickHouseNodeInfo

Parameter	Type	Description
id	String	Instance node ID.
name	String	Instance node name.
type	String	Instance node type. Values: <ul style="list-style-type: none"> • master: primary node • slave: standby node
status	String	Instance node status.
period	String	Instance node subscription period.
volume	volume object	Instance node storage information.

Parameter	Type	Description
cpu	String	Number of vCPUs of the instance node.
mem	String	Memory size (GB) of the instance node.
datastore	datastore object	Data storage information.
priority	Integer	Node priority.
frozen_flag	Integer	Frozen flag. Values: <ul style="list-style-type: none">• 0: not frozen• 1: frozen
db_port	Integer	Database port. Value range: 0–65535.
pay_model	String	Payment method. Values: <ul style="list-style-type: none">• 0: pay-per-use• 1: yearly/monthly
order_id	String	Yearly/Monthly order ID.
traffic_ip	String	Data plane IP address of the node.
traffic_ipv6	String	Data plane IPv6 address of the node.
traffic_vip	String	Data plane virtual IP address of the node.
traffic_vipv6	String	Data plane virtual IPv6 address of the node.
az_code	String	AZ.
az_description	String	AZ description.
az_type	String	AZ type.
region	String	Region where the node is located.
create_at	Integer	Time when the node was created.
update_at	Integer	Time when the node was updated.
flavor_id	String	Node specification ID.
flavor_ref	String	Node specification code.
iass_flavor_ref	String	IaaS specification code.
max_connections	String	Maximum number of public network connections.
vpc_id	String	VPC ID.
subnet_id	String	Subnet ID.
need_restart	Boolean	Whether a reboot is required for parameter update.

Parameter	Type	Description
sg_id	String	Security group.

Table 4-1242 volume

Parameter	Type	Description
type	String	Storage type of the instance node. Values: <ul style="list-style-type: none">● SSD: ultra-high I/O● ESSD: extreme SSD
size	String	Storage space of the instance node.
used	String	Used storage space of the instance node.
iops	Integer	Storage IOPS of the instance node.

Table 4-1243 datastore

Parameter	Type	Description
id	String	Engine ID.
type	String	Engine type. Only click-house is supported.
version	String	Engine version.

Table 4-1244 ops_window

Parameter	Type	Description
period	String	Time window period.
start_time	String	Start time of the time window.
end_time	String	End time of the time window.

Table 4-1245 tags_info

Parameter	Type	Description
tags	Array of tags objects	User tags.
sys_tags	Array of sys_tags objects	System tags.

Table 4-1246 tags

Parameter	Type	Description
key	String	Tag key.
value	String	Tag value.

Table 4-1247 sys_tags

Parameter	Type	Description
key	String	Tag key.
value	String	Tag value.

Table 4-1248 port_info

Parameter	Type	Description
tep_port	Integer	TEP port. Value range: 0-65535.
http_port	Integer	HTTP port. Value range: 0-65535.
mysql_port	Integer	MySQL port. Value range: 0-65535.
https_port	Integer	HTTPS port. Value range: 0-65535.
tep_secure_port	Integer	TEP security port. Value range: 0-65535.

Status code: 400**Table 4-1249** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-1250 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying details about a ClickHouse instance

```
GET https://{endpoint}/v3/23a50154cf494ec9ad6883979a12db0a/instances/  
fb632d1d531a4107804f0f082581810fin07/clickhouse/df3ae779e2ad4993a03ccd7a81240125in16
```

Example Response

Status code: 200

Success.

```
{  
  "instance": {  
    "id": "f8d286fa7db44f51aed30ed7eb6da007in16",  
    "name": "htap-1fb3",  
    "project_id": "23a50154cf494ec9ad6883979a12db0a",  
    "public_ip": "",  
    "can_enable_public_access": false,  
    "current_backup_node_id": null,  
    "cluster_mode": "Single",  
    "status": "normal",  
    "is_frozen": 0,  
    "frozen_time": null,  
    "db_user": null,  
    "bak_period": null,  
    "bak_keep_day": null,  
    "bak_expected_start_time": null,  
    "datastore_version_id": "6a9e233f-e7da-3e81-b12f-7a41a8689250",  
    "datastore_version": "1.23.3.24",  
    "datastore_type": "click-house",  
    "create_at": 1714099209183,  
    "update_at": 1714099209781,  
    "delete_at": null,  
    "db_port": "3306",  
    "param_group": {  
      "id": "1661d4eddd4444dd8447992e74fa3b3epr16",  
      "name": "Default-clickhouse"  
    },  
    "actions": [],  
    "create_fail_error_code": "",  
    "groups": [ {  
      "id": "f3f95d4a837f42ee921760f3c7a0e730gr16",  
      "name": "htap-1fb3_shard01",  
      "group_type_name": "clickhouse",  
      "nodes": [ {  
        "id": "8f23427bf3764627bca1ee40e2364abfno16",  
        "name": "htap-1fb3_shard01_node01",  
        "type": "master",  
        "status": "normal",  
        "period": "null",  
        "volume": {  
          "type": "SSD",  
          "size": "50000000000"  
        },  
        },  
      ],  
    },  
  ],  
}
```

```
"cpu" : "4",
"mem" : "16",
"datastore" : {
  "id" : "6a9e233f-e7da-3e81-b12f-7a41a8689250",
  "type" : "click-house",
  "version" : "1.23.3.24"
},
"priority" : 1,
"frozen_flag" : 0,
"db_port" : 3306,
"pay_model" : "0",
"order_id" : "",
"traffic_ip" : "192.168.0.55",
"traffic_ipv6" : "",
"traffic_vip" : "",
"traffic_vipv6" : "",
"az_code" : "cn-southwest-244b",
"az_description" : "AZ2",
"az_type" : "Center",
"region" : "cn-southwest-244",
"create_at" : 1714099209183,
"update_at" : 1714099209183,
"flavor_id" : "b44cfde6-d250-313c-8d7a-cd216f071658",
"flavor_ref" : "gaussdb.ch.xlarge.x86.4",
"iass_flavor_ref" : "c3.xlarge.4",
"max_connections" : "0",
"vpc_id" : "134c4042-1a1f-4cb8-8258-219a2f6c0d4d",
"subnet_id" : "072e022f-13aa-4c8f-8d64-492cfd123305",
"need_restart" : false,
"sg_id" : ""
}]
}],
"ops_window" : {
  "period" : null,
  "start_time" : "18:00",
  "end_time" : "22:00"
},
"tags_info" : {
  "tags" : [],
  "sys_tags" : [ {
    "key" : "_sys_enterprise_project_id",
    "value" : "0"
  }
]
},
"time_zone" : "UTC+08:00",
"backup_used_space" : null,
"az_mode" : "single",
"master_az_code" : null,
"enterprise_project_id" : null,
"port_info" : {
  "tep_port" : 9000,
  "http_port" : 8123,
  "mysql_port" : 3306,
  "https_port" : 8443,
  "tep_secure_port" : 9440
},
"volume_code" : "gaussdb.ch.evs.ultrahighio",
"support_data_replication" : true,
"new_version_available" : false,
"ssl_option" : true,
"dedicated_resource_id" : null,
"pay_model" : null
}
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.16.17 Scaling Up Storage Space of an Instance

Function

This API is used to scale up storage space of an instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

PUT /v3/{project_id}/instances/{instance_id}/clickhouse/resize

Table 4-1251 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	ClickHouse instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-1252 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> en-us zh-cn

Table 4-1253 Request body parameter

Parameter	Mandatory	Type	Description
size_in_gb	Yes	Integer	Disk capacity. Value range: 50 GB to 32,000 GB.

Response Parameters

Status code: 200

Table 4-1254 Response body parameter

Parameter	Type	Description
job_id	String	ID of the created task.

Status code: 400

Table 4-1255 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500**Table 4-1256** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Scaling up storage space of a ClickHouse instance

```
PUT https://{endpoint}/v3/23a50154cf494ec9ad6883979a12db0a/instances/
fb632d1d531a4107804f0f082581810fin07/clickhouse/resize
```

```
{
  "size_in_gb" : 110
}
```

Example Response**Status code: 200**

Success.

```
{
  "job_id" : "18ef8ee3-b880-4851-8978-bb6acbd4e695"
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.16.18 Rebooting an Instance

Function

This API is used to reboot an instance. Before calling this API:

- Learn how to [authorize and authenticate](#) it.

- Obtain the required [region and endpoint](#).

URI

PUT /v3/{project_id}/instances/{instance_id}/clickhouse/restart

Table 4-1257 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	ClickHouse instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-1258 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Response Parameters

Status code: 200

Table 4-1259 Response body parameter

Parameter	Type	Description
job_id	String	ID of the created task.

Status code: 400**Table 4-1260** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500**Table 4-1261** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Rebooting a ClickHouse instance

```
PUT https://{endpoint}/v3/23a50154cf494ec9ad6883979a12db0a/instances/  
fb632d1d531a4107804f0f082581810fin07/clickhouse/restart
```

Example Response

Status code: 200

Success.

```
{  
  "job_id" : "18ef8ee3-b880-4851-8978-bb6acbd4e695"  
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.16.19 Creating a Database Account

Function

This API is used to create a database account. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

POST /v3/{project_id}/instances/{instance_id}/clickhouse/users

Table 4-1262 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	ClickHouse instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-1263 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Table 4-1264 Request body parameters

Parameter	Mandatory	Type	Description
user_name	Yes	String	Username of the database account. The username can be 2 to 32 characters long. It must start with a lowercase letter and end with a lowercase letter or digit. Only lowercase letters, digits, and underscores (_) are allowed.
password	Yes	String	Account password. The password must: <ul style="list-style-type: none"> • Consist of 8 to 32 characters. • Contain at least three of the following: uppercase letters, lowercase letters, digits, and special characters ~!@#%^*_-=+? • Be different from the username or the username spelled backwards.
databases	Yes	Array of strings	Database list. The asterisk (*) indicates all databases.
dml	No	Integer	DML permissions. The default value is 2. Values: <ul style="list-style-type: none"> • 1: read-only permissions • 2: read and configure permissions

Response Parameters

Status code: 200

Table 4-1265 Response body parameter

Parameter	Type	Description
result	String	Request result.

Status code: 400

Table 4-1266 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-1267 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Creating a database account

```
POST https://{endpoint}/v3/23a50154cf494ec9ad6883979a12db0a/instances/df3ae779e2ad4993a03ccd7a81240125in16/clickhouse/users
{
  "user_name" : "user_test1",
  "password" : "Rds_1234",
  "databases" : [ "*" ],
  "dml" : 1
}
```

Example Response

Status code: 200

Success.

```
{
  "result" : "SUCCESS"
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.16.20 Querying Database Accounts

Function

This API is used to query database accounts. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/instances/{instance_id}/clickhouse/users

Table 4-1268 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	ClickHouse instance ID, which is compliant with the UUID format.

Table 4-1269 Query parameters

Parameter	Mandatory	Type	Description
limit	No	Integer	Number of records to be queried. The default value is 10 . The value cannot be a negative number. The minimum value is 1 and the maximum value is 100 .
offset	No	Integer	Index offset. The default value is 0 . If offset is set to <i>N</i> , the resource query starts from the <i>N</i> +1 piece of data. If the value is set to 0 , indicating that the query starts from the first piece of data. The value must be a number but cannot be a negative number.
user_name	No	String	Database account.

Request Parameters

Table 4-1270 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> en-us zh-cn

Response Parameters

Status code: 200

Table 4-1271 Response body parameters

Parameter	Type	Description
user_details	Array of user_details objects	Database account information.
total_count	Integer	Number of database accounts.

Table 4-1272 user_details

Parameter	Type	Description
user_name	String	Username of the database account.
databases	Array of strings	Authorized databases.
dml	Integer	DML permissions. Values: <ul style="list-style-type: none"> 1: read-only permissions 2: read and configure permissions

Parameter	Type	Description
ddl	Integer	Whether DDL permissions are granted. Values: <ul style="list-style-type: none"> • 0: No • 1: Yes

Status code: 400

Table 4-1273 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-1274 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying 10 database accounts

```
GET https://{endpoint}/v3/23a50154cf494ec9ad6883979a12db0a/instances/54e42160670e48e789af7075e1efea1fin16/clickhouse/users?limit=10
```

Example Response

Status code: 200

Success.

```
{
  "user_details" : [ {
    "user_name" : "root",
    "databases" : [ "*" ],
    "ddl" : 2,
    "ddl" : 0
  }, {
    "user_name" : "user_test1",
    "databases" : [ "*" ],
    "ddl" : 2,
    "ddl" : 0
  } ],
}
```

```
"total_count": 2  
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.16.21 Changing the Password of a Database Account

Function

This API is used to change the password of a database account. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

PUT /v3/{project_id}/instances/{instance_id}/clickhouse/users/password

Table 4-1275 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	ClickHouse instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-1276 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> en-us zh-cn

Table 4-1277 Request body parameters

Parameter	Mandatory	Type	Description
user_name	Yes	String	Username of the database account.
password	Yes	String	Password of the database account. The password must: <ul style="list-style-type: none"> Consist of 8 to 32 characters. Contain at least three of the following: uppercase letters, lowercase letters, digits, and special characters <code>~!@#%^*_-=+?</code>, Be different from the username or the username spelled backwards.

Response Parameters

Status code: 200

Table 4-1278 Response body parameter

Parameter	Type	Description
result	String	Request result.

Status code: 400

Table 4-1279 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-1280 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Changing the password of a database account

```
PUT https://{endpoint}/v3/23a50154cf494ec9ad6883979a12db0a/instances/54e42160670e48e789af7075e1feaf1fin16/clickhouse/users/password
{
  "user_name" : "user_test0",
  "password" : "Clickhouse_1234"
}
```

Example Response

Status code: 200

Success.

```
{
  "result" : "SUCCESS"
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.16.22 Changing Permissions of a Database Account

Function

This API is used to change permissions of a database account. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

PUT /v3/{project_id}/instances/{instance_id}/clickhouse/users/permission

Table 4-1281 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	ClickHouse instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-1282 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> en-us zh-cn

Table 4-1283 Request body parameters

Parameter	Mandatory	Type	Description
user_name	Yes	String	Username of the database account.
databases	Yes	Array of strings	Database list. The asterisk (*) indicates all databases.
dml	Yes	Integer	DML permissions. Values: <ul style="list-style-type: none"> 1: read-only permissions 2: read and configure permissions

Response Parameters

Status code: 200

Table 4-1284 Response body parameter

Parameter	Type	Description
result	String	Request result.

Status code: 400

Table 4-1285 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-1286 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Changing permissions of a database account

```
PUT https://{endpoint}/v3/23a50154cf494ec9ad6883979a12db0a/instances/86fd60a5256a4592b957e8e6bb2d1b59in07/clickhouse/users/permission
```

```
{
  "user_name": "user_test1",
  "databases": [ "*" ],
  "dml": 2
}
```

Example Response

Status code: 200

Success.

```
{
  "result": "SUCCESS"
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.16.23 Creating a Data Synchronization Task

Function

This API is used to create a data synchronization task. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

POST /v3/{project_id}/instances/{instance_id}/clickhouse/replication

Table 4-1287 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	ClickHouse instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-1288 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Table 4-1289 Request body parameters

Parameter	Mandatory	Type	Description
source_instance_id	Yes	String	Source instance ID.
source_node_id	No	String	Source node ID (read replica ID). If this parameter is left blank, the ID of the primary node is used.
source_database	Yes	String	Source database.

Response Parameters

Status code: 200

Table 4-1290 Response body parameter

Parameter	Type	Description
job_id	String	ID of the created task.

Status code: 400

Table 4-1291 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-1292 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Creating a data synchronization task for a ClickHouse instance

```
POST https://{localhost}/v3/23a50154cf494ec9ad6883979a12db0a/instances/54e42160670e48e789af7075e1efea1fin16/clickhouse/replication

{
  "source_instance_id" : "source_instance_id",
  "source_node_id" : "source_node_id",
  "source_database" : "source_database"
}
```

Example Response

Status code: 200

Success.

```
{
  "job_id" : "18ef8ee3-b880-4851-8978-bb6acbd4e695"
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.16.24 Querying Data Synchronization Information

Function

This API is used to query data synchronization information. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/instances/{instance_id}/clickhouse/replication

Table 4-1293 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	ClickHouse instance ID, which is compliant with the UUID format.

Table 4-1294 Query parameters

Parameter	Mandatory	Type	Description
limit	No	Integer	Number of records to be queried. The default value is 10 . The value cannot be a negative number. The minimum value is 1 and the maximum value is 100 .
offset	No	Integer	Index offset. The default value is 0 . If offset is set to N , the resource query starts from the $N+1$ piece of data. If the value is set to 0 , indicating that the query starts from the first piece of data. The value must be a number but cannot be a negative number.

Request Parameters

Table 4-1295 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.

Parameter	Mandatory	Type	Description
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> en-us zh-cn

Response Parameters

Status code: 200

Table 4-1296 Response body parameters

Parameter	Type	Description
total_count	Integer	Total number of data synchronization tasks.
replications	Array of ChDatabaseReplicationInfo objects	Information about data synchronization tasks.
ext_text	String	TaurusDB operations, including reboots, specification changes, and switchovers.

Table 4-1297 ChDatabaseReplicationInfo

Parameter	Type	Description
source_database	String	Source database.
target_database	String	Destination database.
status	String	Current status. Values: <ul style="list-style-type: none"> normal abnormal
stage	String	Synchronization stage. Values: <ul style="list-style-type: none"> wait: waiting for synchronization failed: Synchronization failed incremental: incremental synchronization full: full synchronization other
percentage	String	Progress percentage.

Parameter	Type	Description
catchup_stage	String	Catchup stage. Values: <ul style="list-style-type: none"> ● wait: waiting for synchronization ● failed: Synchronization failed ● incremental: incremental synchronization ● full: full synchronization ● other

Status code: 400

Table 4-1298 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-1299 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying the first 10 synchronization tasks on the first page

```
GET https://{localhost}/v3/23a50154cf494ec9ad6883979a12db0a/instances/54e42160670e48e789af7075e1efea1fin16/clickhouse/replication?offset=1&limit=10
```

Example Response

Status code: 200

Success.

```
{
  "total_count" : 3,
  "replications" : [ {
    "source_database" : "test",
    "target_database" : "test",
    "status" : "abnormal",
    "stage" : "Full",
    "percentage" : 0,
```

```

"catchup_stage" : null
}, {
  "target_database" : "blackwhite_0018_61474479",
  "status" : "normal",
  "stage" : "Incremental",
  "percentage" : 100,
  "catchup_stage" : null
}, {
  "target_database" : "blackwhite_0017_22525694",
  "status" : "normal",
  "stage" : "Wait",
  "percentage" : 0,
  "catchup_stage" : null
} ],
"ext_text" : null
}

```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.16.25 Deleting a Data Synchronization Task

Function

This API is used to delete a data synchronization task. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

DELETE /v3/{project_id}/instances/{instance_id}/clickhouse/replication/
{database_name}

Table 4-1300 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .

Parameter	Mandatory	Type	Description
instance_id	Yes	String	ClickHouse instance ID, which is compliant with the UUID format.
database_name	Yes	String	Database name.

Request Parameters

Table 4-1301 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> en-us zh-cn

Response Parameters

Status code: 200

Table 4-1302 Response body parameters

Parameter	Type	Description
job_id	String	ID of the created task.

Status code: 400

Table 4-1303 Response body parameters

Parameter	Type	Description
error_code	String	Error code.

Parameter	Type	Description
error_msg	String	Error message.

Status code: 500

Table 4-1304 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Deleting a data synchronization task for database **db_test**

```
DELETE https://{localhost}/v3/23a50154cf494ec9ad6883979a12db0a/instances/54e42160670e48e789af7075e1efea1fin16/clickhouse/replication/db_test
```

Example Response

Status code: 200

Success.

```
{
  "job_id" : "18ef8ee3-b880-4851-8978-bb6acbd4e695"
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.16.26 Modifying Data Synchronization Configurations

Function

This API is used to modify data synchronization configurations. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

PUT /v3/{project_id}/instances/{instance_id}/clickhouse/databases/replication/config

Table 4-1305 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	ClickHouse instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-1306 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Table 4-1307 Request body parameters

Parameter	Mandatory	Type	Description
source_instance_id	Yes	String	Source instance ID, which is compliant with the UUID format.
source_node_id	No	String	Node ID of the source instance.
database	Yes	String	Database name.
value	Yes	String	Configuration value. Only the synchronization scope can be modified. You cannot change the whitelist or blacklist type. For example, if you have created a data synchronization whitelist and want to modify it using this API, you can use "value": {"white_list": "test1,test2,test3"}, but not "value": {"black_list": "test1,test2,test3"}.

Response Parameters

Status code: 200

Table 4-1308 Response body parameter

Parameter	Type	Description
job_id	String	ID of the created task.

Status code: 400

Table 4-1309 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-1310 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Modifying a data synchronization whitelist

```
PUT https://{localhost}/v3/23a50154cf494ec9ad6883979a12db0a/instances/54e42160670e48e789af7075e1efea1fin16/clickhouse/databases/replication/config
{
  "source_instance_id" : "5a377c0073cd4264be308fd968e60312in07",
  "source_node_id" : "",
  "database" : "db1",
  "value" : "{\"white_list\": \"t1,t2,t3\"}"
}
```

Example Response

Status code: 200

Success.

```
{
  "job_id" : "3077fd46-2924-4513-ae07-82bac7886a9c"
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.16.27 Stopping Modifying Data Synchronization Configurations

Function

This API is used to stop modifying data synchronization configurations. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

DELETE /v3/{project_id}/instances/{instance_id}/clickhouse/databases/replication/config

Table 4-1311 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	ClickHouse instance ID, which is compliant with the UUID format.

Table 4-1312 Query parameter

Parameter	Mandatory	Type	Description
database	Yes	String	Database name.

Request Parameters

Table 4-1313 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Response Parameters

Status code: 200

Table 4-1314 Response body parameter

Parameter	Type	Description
job_id	String	ID of the created task.

Status code: 400

Table 4-1315 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-1316 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Stopping modifying data synchronization configurations

```
DELETE https://{endpoint}/v3/23a50154cf494ec9ad6883979a12db0a/instances/5eee1a10401b451eb7e6d3badc9c5b95in16/clickhouse/databases/replication/config?database=db
```

Example Response

Status code: 200

Success.

```
{
  "job_id" : "3077fd46-2924-4513-ae07-82bac7886a9c"
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.16.28 Changing Instance Specifications

Function

This API is used to change instance specifications. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

POST /v3/{project_id}/instances/{instance_id}/clickhouse/resize-flavor

Table 4-1317 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	ClickHouse instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-1318 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. To obtain this value, call the IAM API for obtaining a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> en-us zh-cn

Table 4-1319 Request body parameters

Parameter	Mandatory	Type	Description
flavor_ref	Yes	String	Specification ID. To obtain this value, see Querying Specifications of an HTAP Instance . Only the specification ID of the corresponding instance can be used.
delay	Yes	Boolean	Whether to delay the change. The default value is false .
instance_id	No	String	Instance ID, which is compliant with the UUID format.

Response Parameters

Status code: 200

Table 4-1320 Response body parameter

Parameter	Type	Description
result	String	Request result.

Status code: 400

Table 4-1321 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-1322 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Changing the specifications of a ClickHouse instance

```
POST https://{endpoint}/v3/23a50154cf494ec9ad6883979a12db0a/instances/
fb632d1d531a4107804f0f082581810fin07/clickhouse/resize-flavor
{
  "flavor_ref" : "6ebc6add-7462-3c27-b92b-3d79ae37a309",
  "delay" : false,
  "instance_id" : "59c6b263cd884178b7395e1ee8d93fbdin16"
}
```

Example Response

Status code: 200

Success.

```
{
  "result" : "3077fd46-2924-4513-ae07-82bac7886a9c"
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

4.17 Multi-tenancy

4.17.1 Querying the Status of Multi-tenancy

Function

This API is used to query the status of multi-tenancy. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/instances/{instance_id}/multi-tenant

Table 4-1323 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-1324 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.

Parameter	Mandatory	Type	Description
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none"> • en-us • zh-cn

Response Parameters

Status code: 200

Table 4-1325 Response body parameter

Parameter	Type	Description
multi_tenant_switch	Boolean	Whether to enable multi-tenancy for an instance. <ul style="list-style-type: none"> • true: enabled • false: disabled

Status code: 400

Table 4-1326 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 4-1327 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying the status of multi-tenancy

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
af315b8e6aaa41799bd9a31f2de15abcin07/multi-tenant
```

Example Response

Status code: 200

Success.

```
{  
  "multi_tenant_switch" : true  
}
```

Example SDK Code

The example SDK code is as follows.

Java

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;  
import com.huaweicloud.sdk.core.exception.ConnectionException;  
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;  
import com.huaweicloud.sdk.core.exception.ServiceResponseException;  
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;  
import com.huaweicloud.sdk.gaussdb.v3.*;  
import com.huaweicloud.sdk.gaussdb.v3.model.*;  
  
public class ShowMultiTenantSolution {  
  
    public static void main(String[] args) {  
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great  
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or  
        // environment variables and decrypted during use to ensure security.  
        // In this example, AK and SK are stored in environment variables for authentication. Before running  
        // this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
        String ak = System.getenv("CLOUD_SDK_AK");  
        String sk = System.getenv("CLOUD_SDK_SK");  
        String projectId = "{project_id}";  
  
        ICredential auth = new BasicCredentials()  
            .withProjectId(projectId)  
            .withAk(ak)  
            .withSk(sk);  
  
        GaussDBClient client = GaussDBClient.newBuilder()  
            .withCredential(auth)  
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))  
            .build();  
        ShowMultiTenantRequest request = new ShowMultiTenantRequest();  
        request.withInstanceId("{instance_id}");  
        try {  
            ShowMultiTenantResponse response = client.showMultiTenant(request);  
            System.out.println(response.toString());  
        } catch (ConnectionException e) {  
            e.printStackTrace();  
        } catch (RequestTimeoutException e) {  
            e.printStackTrace();  
        } catch (ServiceResponseException e) {  
            e.printStackTrace();  
            System.out.println(e.getStatusCode());  
            System.out.println(e.getRequestId());  
            System.out.println(e.getErrorCode());  
            System.out.println(e.getErrorMsg());  
        }  
    }  
}
```

```
}  
}  
}
```

Python

```
# coding: utf-8  
  
import os  
from huaweicloudsdkcore.auth.credentials import BasicCredentials  
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion  
from huaweicloudsdkcore.exceptions import exceptions  
from huaweicloudsdkgaussdb.v3 import *  
  
if __name__ == "__main__":  
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security  
    # risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment  
    # variables and decrypted during use to ensure security.  
    # In this example, AK and SK are stored in environment variables for authentication. Before running this  
    # example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
    ak = os.environ["CLOUD_SDK_AK"]  
    sk = os.environ["CLOUD_SDK_SK"]  
    projectId = "{project_id}"  
  
    credentials = BasicCredentials(ak, sk, projectId)  
  
    client = GaussDBClient.new_builder() \  
        .with_credentials(credentials) \  
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \  
        .build()  
  
    try:  
        request = ShowMultiTenantRequest()  
        request.instance_id = "{instance_id}"  
        response = client.show_multi_tenant(request)  
        print(response)  
    except exceptions.ClientRequestException as e:  
        print(e.status_code)  
        print(e.request_id)  
        print(e.error_code)  
        print(e.error_msg)
```

Go

```
package main  
  
import (  
    "fmt"  
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"  
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"  
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"  
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"  
)  
  
func main() {  
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security  
    // risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment  
    // variables and decrypted during use to ensure security.  
    // In this example, AK and SK are stored in environment variables for authentication. Before running this  
    // example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment  
    ak := os.Getenv("CLOUD_SDK_AK")  
    sk := os.Getenv("CLOUD_SDK_SK")  
    projectId := "{project_id}"  
  
    auth := basic.NewCredentialsBuilder().  
        WithAk(ak).  
        WithSk(sk).  
        WithProjectId(projectId).  
        Build()
```

```
client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.ShowMultiTenantRequest{}
request.InstanceId = "{instance_id}"
response, err := client.ShowMultiTenant(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
```

More Programming Languages

For SDK code examples in more programming languages, visit [API Explorer](#) and click the **Sample Code** tab. Code examples can be automatically generated.

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

4.17.2 Enabling or Disabling Multi-tenancy

Function

This API is used to enable or disable multi-tenancy. Before calling this API:

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

PUT /v3/{project_id}/instances/{instance_id}/multi-tenant

Table 4-1328 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request Parameters

Table 4-1329 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Table 4-1330 Request body parameter

Parameter	Mandatory	Type	Description
multi_tenant_switch	Yes	Boolean	Whether to enable multi-tenancy for an instance. <ul style="list-style-type: none">• true: enabled• false: disabled

Response Parameters

Status code: 200

Table 4-1331 Response body parameter

Parameter	Type	Description
job_id	String	ID of the task for enabling or disabling multi-tenancy

Status code: 400

Table 4-1332 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500**Table 4-1333** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

- Enabling multi-tenancy
PUT https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/af315b8e6aaa41799bd9a31f2de15abcin07/multi-tenant

```
{  
  "multi_tenant_switch" : true  
}
```
- Disabling multi-tenancy
PUT https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/af315b8e6aaa41799bd9a31f2de15abcin07/multi-tenant

```
{  
  "multi_tenant_switch" : false  
}
```

Example Response

Status code: 200

Success.

```
{  
  "job_id" : "aef6a470-fb63-4d5b-b644-12ead7e019b3"  
}
```

Example SDK Code

The example SDK code is as follows.

Java

- Enabling multi-tenancy

```
package com.huaweicloud.sdk.test;  
  
import com.huaweicloud.sdk.core.auth.ICredential;  
import com.huaweicloud.sdk.core.auth.BasicCredentials;
```



```
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class UpdateMultiTenantSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
        // environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
        // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
        // environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        GaussDBClient client = GaussDBClient.newBuilder()
            .withCredential(auth)
            .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
            .build();
        UpdateMultiTenantRequest request = new UpdateMultiTenantRequest();
        request.withInstanceId("{instance_id}");
        OperateMultiTenantReq body = new OperateMultiTenantReq();
        body.withMultiTenantSwitch(true);
        request.withBody(body);
        try {
            UpdateMultiTenantResponse response = client.updateMultiTenant(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

- **Disabling multi-tenancy**

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.gaussdb.v3.region.GaussDBRegion;
import com.huaweicloud.sdk.gaussdb.v3.*;
import com.huaweicloud.sdk.gaussdb.v3.model.*;

public class UpdateMultiTenantSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
        // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
```

```
environment variables and decrypted during use to ensure security.
// In this example, AK and SK are stored in environment variables for authentication. Before
running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
environment
String ak = System.getenv("CLOUD_SDK_AK");
String sk = System.getenv("CLOUD_SDK_SK");
String projectId = "{project_id}";

ICredential auth = new BasicCredentials()
    .withProjectId(projectId)
    .withAk(ak)
    .withSk(sk);

GaussDBClient client = GaussDBClient.newBuilder()
    .withCredential(auth)
    .withRegion(GaussDBRegion.valueOf("<YOUR REGION>"))
    .build();
UpdateMultiTenantRequest request = new UpdateMultiTenantRequest();
request.withInstanceId("{instance_id}");
OperateMultiTenantReq body = new OperateMultiTenantReq();
body.withMultiTenantSwitch(false);
request.withBody(body);
try {
    UpdateMultiTenantResponse response = client.updateMultiTenant(request);
    System.out.println(response.toString());
} catch (ConnectionException e) {
    e.printStackTrace();
} catch (RequestTimeoutException e) {
    e.printStackTrace();
} catch (ServiceResponseException e) {
    e.printStackTrace();
    System.out.println(e.getHttpStatusCode());
    System.out.println(e.getRequestId());
    System.out.println(e.getErrorCode());
    System.out.println(e.getErrorMsg());
}
}
```

Python

- Enabling multi-tenancy

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    environment
    ak = os.getenv("CLOUD_SDK_AK")
    sk = os.getenv("CLOUD_SDK_SK")
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
```

```
request = UpdateMultiTenantRequest()
request.instance_id = "{instance_id}"
request.body = OperateMultiTenantReq(
    multi_tenant_switch=True
)
response = client.update_multi_tenant(request)
print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

- **Disabling multi-tenancy**

coding: utf-8

```
import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdkgaussdb.v3.region.gaussdb_region import GaussDBRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdkgaussdb.v3 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    # security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    # environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
    # running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    # environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = GaussDBClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(GaussDBRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateMultiTenantRequest()
        request.instance_id = "{instance_id}"
        request.body = OperateMultiTenantReq(
            multi_tenant_switch=False
        )
        response = client.update_multi_tenant(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

- **Enabling multi-tenancy**

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
```

security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.

// In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment

```
ak := os.Getenv("CLOUD_SDK_AK")
sk := os.Getenv("CLOUD_SDK_SK")
projectId := "{project_id}"

auth := basic.NewCredentialsBuilder().
    WithAk(ak).
    WithSk(sk).
    WithProjectId(projectId).
    Build()

client := gaussdb.NewGaussDBClient(
    gaussdb.GaussDBClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.UpdateMultiTenantRequest{}
request.InstanceId = "{instance_id}"
request.Body = &model.OperateMultiTenantReq{
    MultiTenantSwitch: true,
}
response, err := client.UpdateMultiTenant(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

- **Disabling multi-tenancy**

package main

```
import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    gaussdb "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/gaussdb/v3/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
    // security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
    // environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
    // running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
    // environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := gaussdb.NewGaussDBClient(
        gaussdb.GaussDBClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateMultiTenantRequest{}
    request.InstanceId = "{instance_id}"
```

```
request.Body = &model.OperateMultiTenantReq{
    MultiTenantSwitch: false,
}
response, err := client.UpdateMultiTenant(request)
if err == nil {
    fmt.Printf("%+v\n", response)
} else {
    fmt.Println(err)
}
}
```

More Programming Languages

For SDK code examples in more programming languages, visit [API Explorer](#) and click the **Sample Code** tab. Code examples can be automatically generated.

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

5 APIs (Unavailable Soon)

5.1 DB Engine Version Queries

5.1.1 Querying Version Information About a DB Engine

Function

This API is used to query the version information of a specified DB engine. Before calling this API:

NOTICE

This API will be unavailable on March 31, 2025. You are advised to switch workloads to the new API ([Querying Version Information About a DB Engine](#)) before then.

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

- URI format
GET https://{endpoint}/mysql/v3/{project_id}/datastores/{database_name}
- Example
GET https://{endpoint}/mysql/v3/619d3e78f61b4be68bc5aa0b59edcf7b/datastores/gaussdb-mysql
- Parameter description

Table 5-1 Parameter description

Name	Mandatory	Description
project_id	Yes	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
database_name	Yes	DB engine. The following DB engine is supported (case-insensitive): gaussdb-mysql

Request

None.

Response

- Normal response

Table 5-2 Parameter description

Name	Type	Description
datastores	Array of objects	DB versions. For details, see Table 5-3 .

Table 5-3 datastores field data structure description

Name	Type	Description
id	String	DB version ID. Its value is unique.
name	String	DB version number. Only the major version number with two digits is returned.

- Example normal response

```
{
  "datastores": [{
    "id": "87620726-6802-46c0-9028-a8785e1f1921",
    "name": "8.0"
  }]
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

5.2 Database Specification Queries

5.2.1 Querying Database Specifications

Function

This API is used to query the database specifications of a specified DB engine version. Before calling this API:

NOTICE

This API will be unavailable on March 31, 2025. You are advised to switch workloads to the new API ([Querying Database Specifications](#)) before then.

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

- URI format
GET `https://{endpoint}/mysql/v3/{project_id}/flavors/{database_name}?version_name={version_name}&spec_code={spec_code}&availability_zone_mode={availability_zone_mode}`
- Example
GET `https://{endpoint}/mysql/v3/0483b6b16e954cb88930a360d2c4e663/flavors/gaussdb-mysql?version_name=8.0&spec_code=gaussdb.mysql.xlarge.x86.4&availability_zone_mode=single`
- Parameter description

Table 5-4 Parameter description

Name	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
database_name	Yes	String	DB engine. Its value is case-insensitive and can be: gaussdb-mysql

Name	Mandatory	Type	Description
version_name	No	String	DB version number. To obtain this value, see Querying Version Information About a DB Engine . Currently, only MySQL 8.0 is supported.
availability_zone_mode	Yes	String	AZ mode. Its value can be single or multi and is case-insensitive.
spec_code	No	String	Specification code.

Request

None.

Response

- Normal response

Table 5-5 Parameter description

Name	Type	Description
flavors	Array of objects	DB instance specification list. For details, see Table 5-6 .

Table 5-6 flavors field data structure description

Name	Type	Description
vcpus	String	Number of vCPUs. For example, the value 1 indicates 1 vCPU.
ram	String	Memory size in GB.
type	String	Specification type. The value can be arm .
id	String	Specification ID. The value must be unique.
spec_code	String	Resource specification code. Its value is same as the value of flavor_ref .
version_name	String	DB version number.
instance_mode	String	DB instance type. Currently, only the cluster type is supported.

Name	Type	Description
az_status	Map<String, String>	Status of the AZ where the specification belongs. Its value can be any of the following: <ul style="list-style-type: none">● normal: on sale.● unsupported: not supported● sellout: sold out

- Example normal response

```
{
  "flavors":[
    {
      "vcpus":"1",
      "ram":"4",
      "type":"x86",
      "id":"3169caaf-6c2f-41d5-aadd-c8fc3d83597e",
      "spec_code":"gaussdb.xlarge.x86.4",
      "instance_mode":"Cluster",
      "version_name": "8.0",
      "az_status":{
        "az1":"normal",
        "az2":"normal"
      }
    },
    {
      "vcpus":"2",
      "ram":"4",
      "type":"arm"
      "id":"cefb8fab-c9f7-482f-a97c-e8a0c8abe35b",
      "spec_code":"gaussdb.mysql.xlarge.x86.2",
      "instance_mode":"Cluster",
      "version_name": "8.0",
      "az_status":{
        "az1":"normal",
        "az2":"normal"
      }
    }
  ]
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

5.3 Instance Management

5.3.1 Creating a DB Instance

Function

This API is used to create a DB instance. Before calling this API:

NOTICE

This API will be unavailable on March 31, 2025. You are advised to switch workloads to the new API ([Creating a DB Instance](#)) before then.

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

- URI format
POST `https://{endpoint}/mysql/v3/{project_id}/instances`
- Example
POST `https://{endpoint}/mysql/v3/0483b6b16e954cb88930a360d2c4e663/instances`
- Parameter description

Table 5-7 Parameter description

Name	Mandatory	Description
project_id	Yes	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .

Request

Table 5-8 Parameter description

Name	Mandatory	Type	Description
charge_info	No	Object	Billing mode, which is yearly/monthly or pay-per-use (default setting). For details, see Table 5-9 . Note: You cannot create yearly/monthly instances in a DeC.

Name	Mandatory	Type	Description
name	Yes	String	DB instance name. Instances of the same type can have same names under the same tenant. The value consists of 4 to 64 characters and starts with a letter. It is case-sensitive and contains only letters, digits, hyphens (-), and underscores (_).
datastore	Yes	Object	Database information. For details, see Table 5-10 .
mode	Yes	String	DB instance type, which is case-insensitive. Currently, only the cluster type is supported.
flavor_ref	Yes	String	Specification code. For details, see Table 5-6 .
vpc_id	Yes	String	VPC ID. To obtain this value, use either of the following methods: <ul style="list-style-type: none">• Method 1: Log in to the VPC console and view the VPC ID on the VPC details page.• Method 2: See "Querying VPCs" in the <i>Virtual Private Cloud API Reference</i>.
subnet_id	Yes	String	Network ID. To obtain this value, use either of the following methods: <ul style="list-style-type: none">• Method 1: Log in to the VPC console and click the target subnet on the Subnets page. You can view the network ID on the displayed page.• Method 2: See "Querying Subnets" in the <i>Virtual Private Cloud API Reference</i>.

Name	Mandatory	Type	Description
security_group_id	No	String	<p>Security group ID.</p> <p>If network ACL is enabled, this parameter cannot be specified. If network ACL is disabled, this parameter is mandatory.</p> <ul style="list-style-type: none"> Method 1: Log in to VPC console. Choose Access Control > Security Groups in the navigation pane on the left. On the displayed page, click the target security group. You can view the security group ID on the displayed page. Method 2: See "Querying Security Groups" in the <i>Virtual Private Cloud API Reference</i>.
configuration_id	No	String	Parameter template ID.
password	Yes	String	<p>Database password.</p> <p>Values:</p> <p>The password consists of 8 to 32 characters and contains at least three types of the following: uppercase letters, lowercase letters, digits, and special characters ~!@#%^*_-=+?</p> <p>You are advised to enter a strong password to improve security and prevent security risks such as brute force cracking. If you enter a weak password, the system automatically determines that the password is invalid.</p>
backup_strategy	No	Object	<p>Automated backup policy.</p> <p>For details, see Table 5-11.</p>
time_zone	No	String	<p>UTC time zone.</p> <ul style="list-style-type: none"> If this parameter is not specified, UTC is used by default. If this parameter is specified, the value ranges from UTC-12:00 to UTC+12:00 at the full hour. For example, the parameter can be UTC+08:00 rather than UTC+08:30.
availability_zone_mode	Yes	String	AZ type. It can be single or multi .

Name	Mandatory	Type	Description
master_availability_zone	If availability_zone_mode is set to multi , this parameter is mandatory. If availability_zone_mode is set to single , this parameter cannot be specified.	String	Primary AZ.
slave_count	Yes	Integer	Number of read replicas. The value is from 1 to 9. An instance contains up to 15 read replicas.
region	Yes	String	Region ID. The value cannot be empty. To obtain this value, see Regions and Endpoints .
volume	No	Object	Volume information. This parameter is optional during the creation of yearly/monthly instances. For details, see Table 5-12 .
enterprise_project_id	No	String	Enterprise project ID. This parameter is mandatory when the enterprise project is enabled, and cannot be specified when the enterprise project is disabled.

Name	Mandatory	Type	Description
lower_case_table_names	No	Integer	Whether a kernel table name is case-sensitive. If the value is 1 (by default), the table name is case-insensitive. If the value is 0 , the table name is case-sensitive.
tags	No	Array of objects	<p>Tag list. Instances are created based on tag keys and values.</p> <ul style="list-style-type: none"> • <i>{key}</i> indicates the tag key. It must be unique and cannot be empty. • <i>{value}</i> indicates the tag value, which can be empty. <p>To create instances with multiple tag keys and values, separate key-value pairs with commas (.). Up to 20 key-value pairs can be added.</p> <p>For details, see Table 5-13.</p>

Table 5-9 charge_info field data structure description

Name	Mandatory	Type	Description
charge_mode	Yes	String	<p>Billing mode.</p> <p>Values:</p> <ul style="list-style-type: none"> • prePaid: indicates the yearly/monthly billing mode. • postPaid: indicates the pay-per-use billing mode.
period_type	No	String	<p>Subscription period.</p> <p>Values:</p> <ul style="list-style-type: none"> • month: The service is subscribed by month. • year: The service is subscribed by year. <p>NOTE This parameter is valid and mandatory if charge_mode is set to prePaid.</p>

Name	Mandatory	Type	Description
period_num	No	Integer	Subscription duration. This parameter is valid and mandatory if charge_mode is set to prePaid . Values: <ul style="list-style-type: none">• When period_type is set to month, the parameter value ranges from 1 to 9.• When period_type is set to year, the parameter value ranges from 1 to 3.

Table 5-10 datastore field data structure description

Name	Mandatory	Type	Description
type	Yes	String	DB engine. Currently, only gaussdb-mysql is supported.
version	Yes	String	DB version. For details about supported DB versions, see Querying Version Information About a DB Engine .

Table 5-11 backup_strategy field data structure description

Name	Mandatory	Type	Description
start_time	Yes	String	<p>Automated backup start time. The automated backup will be triggered within one hour after the time specified by this parameter.</p> <p>The value cannot be empty. It must be a valid value in the "hh:mm-HH:MM" format. The current time is in the UTC format.</p> <ul style="list-style-type: none">• The HH value must be 1 greater than the hh value.• The values of mm and MM must be the same and must be set to 00. <p>Example value:</p> <ul style="list-style-type: none">• 21:00-22:00

Table 5-12 volume field data structure description

Name	Mandatory	Type	Description
size	Yes	Integer	<p>Disk size. The default value is 40 GB.</p> <p>The value ranges from 40 GB to 128,000 GB and must be a multiple of 10.</p>

Table 5-13 tags field data structure description

Name	Mandatory	Type	Description
key	Yes	String	Tag key. It contains a maximum of 36 Unicode characters. The value cannot be an empty string, a space, or left blank. Only uppercase letters, lowercase letters, digits, hyphens (-), and underscores (_) are allowed.
value	Yes	String	Tag value. It contains a maximum of 43 Unicode characters. It can be an empty string. Only uppercase letters, lowercase letters, digits, periods (.), hyphens (-), and underscores (_) are allowed.

 **NOTE**

The value of **region** in the following is used as an example.

- Request example

```
{
  "charge_info":{
    "charge_mode":"postPaid"
  },
  "region":"xxx",
  "name":"gaussdb-2d34",
  "datastore":{
    "type":"gaussdb-mysql",
    "version":"8.0"
  },
  "mode":"Cluster",
  "flavor_ref":"gaussdb.mysql.large.x86.4",
  "vpc_id":"f7ee62e2-9705-4523-ba49-a85ea1a1fa87",
  "subnet_id":"140af7bf-a9da-4dcf-8837-34199fd6d186",
  "security_group_id":"c7f69884-fe2b-4630-8114-70a11499d902",
  "configuration_id":"43570e0de32e40c5a15f831aa5ce4176pr07",
  "password":"xxxx",
  "backup_strategy":{
    "start_time":"17:00-18:00"
  },
  "time_zone":"UTC+08:00",
  "availability_zone_mode":"multi",
  "master_availability_zone":"az1pod1",
  "slave_count":1,
  "enterprise_project_id":"0",
  "lower_case_table_names":1
}
```

Response

- Normal response

Table 5-14 Parameter description

Name	Type	Description
instance	Object	Instance information. For details, see Table 5-15 .
job_id	String	DB instance creation task ID. This parameter is returned only when pay-per-use DB instances are created.
order_id	String	Order ID. This parameter is returned only when yearly/monthly instances are created.

Table 5-15 instance field data structure description

Name	Type	Description
id	String	DB instance ID.
name	String	DB instance name. Instances of the same type can have same names under the same tenant. The value consists of 4 to 64 characters and starts with a letter. It is case-insensitive and contains only letters, digits, hyphens (-), and underscores (_).
status	String	DB instance status. This parameter is returned only when pay-per-use DB instances are created.
datastore	Object	Database information. For details, see Table 5-16 .
mode	String	DB instance type. Currently, only the cluster type is supported.
configuration_id	String	Parameter template ID.
port	String	Database port, which is the same as the request parameter.
backup_strategy	Object	Automated backup policy. For details, see Table 5-17 .

Name	Type	Description
enterprise_project_id	String	Enterprise project ID, which is the same as the request parameter.
region	String	Region ID, which is the same as the request parameter.
availability_zone_mode	String	AZ type, which is the same as the request parameter.
master_availability_zone	String	Primary AZ ID.
vpc_id	String	VPC ID, which is the same as the request parameter.
security_group_id	String	Security group ID, which is the same as the request parameter.
subnet_id	String	Subnet ID, which is the same as the request parameter.
flavor_ref	String	Specification code, which is the same as the request parameter. For details, see Table 5-6 .
charge_info	Object	Billing mode, which is yearly/monthly or pay-per-use. For details, see Table 5-18 .

Table 5-16 datastore field data structure description

Name	Type	Description
type	String	DB Engine
version	String	DB version.

Table 5-17 backup_strategy field data structure description

Name	Type	Description
start_time	String	Backup time window. Automated backups will be triggered during the backup time window.
keep_days	Integer	Backup retention days.

Table 5-18 charge_info field data structure description

Name	Type	Description
charge_mode	String	Billing mode, which is yearly/monthly or pay-per-use.
period_num	Integer	Subscription duration, which is calculated by month. This parameter is valid when charge_mode is set to prePaid (this parameter is valid only for yearly/monthly instances).

NOTE

The values of **region** and **master_availability_zone** are used as examples.

- Example normal response

```
{
  "instance":{
    "id":"5eebbb4c0f9f4a99b42ed1b6334569aaain07",
    "name":"gaussdb-2d34",
    "status":"BUILD",
    "datastore":{
      "type":"gaussdb-mysql",
      "version":"8.0"
    },
    "mode":"Cluster",
    "configuration_id": "",
    "port":null,
    "backup_strategy":{
      "start_time":null,
      "keep_days":"7"
    },
    "enterprise_project_id": "0",
    "region":"aaa",
    "availability_zone_mode":"multi",
    "master_availability_zone":"aaa",
    "vpc_id":"f7ee62e2-9705-4523-ba49-a85ea1a1fa87",
    "security_group_id":"c7f69884-fe2b-4630-8114-70a11499d902",
    "subnet_id":"140af7bf-a9da-4dcf-8837-34199fd6d186"
    "charge_info":{
      "charge_mode":"postPaid"
    },
    "flavor_ref":"gaussdb.mysql.large.x86.4"
  },
  "job_id":"43672fe5-56bd-47f1-8fd1-595cded08a7c"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

5.3.2 Querying DB Instances

Function

This API is used to query instances according to search criteria. Before calling this API:

NOTICE

This API will be unavailable on March 31, 2025. You are advised to switch workloads to the new API ([Querying DB instances](#)) before then.

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

- URI format

```
GET https://{endpoint}/mysql/v3/{project_id}/instances?
id={id}&name={name}&type={type}&datastore_type={datastore_type}&vpc_id
={vpc_id}&subnet_id={subnet_id}&offset={offset}&limit={limit}
```

- Example

```
GET https://{endpoint}/mysql/v3/97b026aa9cc4417888c14c84a1ad9860/
instances?
id=ed7cc6166ec24360a5ed5c5c9c2ed726in01&name=hy&type=Cluster&datastore_type=gaussdb-mysql&vpc_id=19e5d45d-70fd-4a91-87e9-b27e71c9891f&subnet_id=bd51fb45-2dcb-4296-8783-8623bfe89bb7&offset=0&limit=10
```

- Parameter description

Table 5-19 Parameter description

Name	Type	Mandatory	Description
project_id	String	Yes	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
id	String	No	DB instance ID. The asterisk (*) is reserved for the system. If the instance ID starts with an asterisk (*), the value following asterisk (*) is used for fuzzy matching. Otherwise, the instance ID is used for exact matching.

Name	Type	Mandatory	Description
name	String	No	DB instance name. The asterisk (*) is reserved for the system. If the instance name starts with an asterisk (*), the value following asterisk (*) is used for fuzzy matching. Otherwise, the instance name is used for exact matching.
type	String	No	DB instance type to be queried. Currently, only the cluster type is supported.
datastore_type	String	No	DB type. Currently, only gaussdb-mysql is supported.
vpc_id	String	No	VPC ID. <ul style="list-style-type: none">Method 1: Log in to the VPC console and view the VPC ID on the VPC details page.Method 2: See "Querying VPCs" in the <i>Virtual Private Cloud API Reference</i>.
subnet_id	String	No	Network ID of the subnet. <ul style="list-style-type: none">Method 1: Log in to the VPC console and click the target subnet on the Subnets page. You can view the network ID on the displayed page.Method 2: See "Querying Subnets" in the <i>Virtual Private Cloud API Reference</i>.
offset	Integer	No	Index offset. If offset is set to <i>N</i> , the resource query starts from the <i>N</i> +1 piece of data. The value is 0 by default, indicating that the query starts from the first piece of data. The value cannot be a negative number.
limit	Integer	No	Number of records to be queried. The default value is 100 . The value must be a positive integer. The minimum value is 1 and the maximum value is 100 .

Request

None.

Response

- Normal response

Table 5-20 Parameter description

Name	Type	Description
instances	Array of objects	Instance information. For details, see Table 5-21 .
total_count	Integer	Total number of records.

Table 5-21 instances field data structure description

Name	Type	Description
id	String	DB instance ID.
name	String	DB instance name.
status	String	DB instance status.
private_ips	List<String>	Private IP address for write. It is a blank string until an ECS is created.
public_ips	List<String>	Public IP addresses.
port	String	Database port.
type	String	DB instance type. The value is Cluster .
region	String	Region where the DB instance is deployed.
datastore	Object	Database information. For details, see Table 5-22 .
created	String	Creation time in the "yyyy-mm-ddThh:mm:ssZ" format. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, in the Beijing time zone, the time zone offset is shown as +0800 . The value is empty unless the instance creation is complete.
updated	String	Update time. The format is the same as that of the created field. The value is empty unless the instance creation is complete.
db_user_name	String	Default username.

Name	Type	Description
vpc_id	String	VPC ID.
subnet_id	String	Network ID of the subnet.
security_group_id	String	Security group ID.
flavor_ref	String	Specification code. For details, see Table 5-6 .
flavor_info	Object	Specification description.
volume	Object	Volume information. For details, see Table 5-23 .
backup_strategy	Object	Backup policy. For details, see Table 5-25 .
enterprise_project_id	String	Enterprise project ID.
time_zone	String	Time zone.
charge_info	Object	Billing mode, which is yearly/monthly or pay-per-use. By default, pay-per-use is used. For details, see Table 5-26 .

Table 5-22 datastore field data structure description

Name	Type	Description
type	String	DB engine.
version	String	DB version.

Table 5-23 volume field data structure description

Name	Type	Description
type	String	Disk type.
size	String	Used disk size in GB.

Table 5-24 flavor_ref field data structure description

Name	Type	Description
vcpus	String	Number of vCPUs.
ram	String	Memory size in GB.

Table 5-25 backup_strategy field data structure description

Name	Type	Description
start_time	String	Backup time window. Automated backups will be triggered during the backup time window.
keep_days	String	Backup retention days.

Table 5-26 charge_info field data structure description

Name	Type	Description
charge_mode	String	Billing mode. Values: <ul style="list-style-type: none"> • prePaid: indicates the yearly/monthly billing mode. • postPaid: indicates the pay-per-use billing mode.

 **NOTE**

The value of **region** is used as an example in the following response.

- Example normal response

```
{
  "total_count":6,
  "instances":[
    {
      "id":"d738399de028480fabb2b8120d4e01a4in07",
      "status":"ACTIVE",
      "name":"oMoS_001",
      "port":3306,
      "type":"Cluster",
      "private_ips": ["192.168.0.142"],
      "public_ips": ["10.154.219.187"],
      "db_user_name": "root",
      "region": "aaa",
      "datastore": {"type": "gaussdb-mysql", "version":"8.0"},
      "created": "2018-08-20T02:33:49+0800",
      "updated": "2018-08-20T02:33:50+0800",
      "volume": {
        "type": "POOL",
```

```

        "used_size": 100
    },
    "vpc_id": "f7ee62e2-9705-4523-ba49-a85ea1a1fa87",
    "subnet_id": "140af7bf-a9da-4dcf-8837-34199fd6d186",
    "security_group_id": "c7f69884-fe2b-4630-8114-70a11499d902",
    "flavor_ref": "gaussdb.mysql.c3.small.4",
    "backup_strategy": {"start_time": "19:00-20:00", "keep_days": 7},
    "charge_info": {
        "charge_mode": "postPaid"
    },
    "enterprise_project_id": "0",
    "time_zone": "",
}
]
}

```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

5.3.3 Querying DB Instances

Function

This API is used to query DB instances according to search criteria. Before calling this API:

NOTICE

This API will be unavailable on December 31, 2025. You are advised to switch workloads to the new API ([Querying DB instances](#)) before then.

URI

GET /v3/{project_id}/instances

Table 5-27 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .

Table 5-28 Query parameters

Parameter	Mandatory	Type	Description
id	No	String	Instance ID. The asterisk (*) is reserved for the system. If the instance ID starts with *, it indicates that fuzzy match is performed based on the value following *. Otherwise, the exact match is performed based on the instance ID. The value cannot contain only asterisks (*).
name	No	String	Instance name. The asterisk (*) is reserved for the system. If the instance name starts with *, it indicates that fuzzy match is performed based on the value following *. Otherwise, the exact match is performed based on the instance name. The value cannot contain only asterisks (*).
type	No	String	Instance type to be queried. Currently, only the cluster type is supported.
datastore_type	No	String	DB type. Currently, only gaussdb-mysql is supported.
vpc_id	No	String	VPC ID.
subnet_id	No	String	Network ID of the subnet.
private_ip	No	String	Private IP address.
readonly_private_ip	No	String	Private IP address for read.
proxy_ip	No	String	Read/write splitting address.
offset	No	Integer	Index offset. If offset is set to <i>N</i> , the resource query starts from the <i>N</i> +1 piece of data. The value is 0 by default, indicating that the query starts from the first piece of data. The value cannot be a negative number.

Parameter	Mandatory	Type	Description
limit	No	Integer	Number of records to be queried. The default value is 100 . The value must be a positive integer. The minimum value is 1 and the maximum value is 100 .
tags	No	String	Query based on the instance tag key and value. <ul style="list-style-type: none">• <i>{key}</i> indicates the tag key.• <i>{value}</i> indicates the tag value. To query instances with multiple tag keys and values, separate key-value pairs with commas (,). The key must be unique. Multiple keys are in AND relationship.

Request Parameters

Table 5-29 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Response Parameters

Status code: 200

Table 5-30 Response body parameters

Parameter	Type	Description
instances	Array of MysqlInstanceListInfo objects	Instance list information.
total_count	Integer	Total number of records.

Table 5-31 MysqlInstanceListInfo

Parameter	Type	Description
id	String	Instance ID.
name	String	Instance name.
status	String	Instance status.
private_ips	Array of strings	Private IP address for write. It is left blank until an ECS is created.
readonly_private_ips	Array of strings	Private IP addresses for read. It is left blank until an ECS is created.
proxy_ips	Array of strings	Read/write splitting IP addresses. It is left blank until proxy instances are created for an instance.
public_ips	Array of strings	Public IP addresses.
port	String	Database port.
type	String	DB instance type. The value is Cluster .
region	String	Region where the DB instance is deployed.
datastore	MysqlDatastore object	Database information.
created	String	Creation time in the "yyyy-mm-ddThh:mm:ssZ" format. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, in the Beijing time zone, the time zone offset is shown as +0800 . NOTE The value is empty when the DB instance is being created. After the DB instance is created, the value is not empty.

Parameter	Type	Description
updated	String	Update time. The format is the same as that of the created field. NOTE The value is empty when the DB instance is being created. After the DB instance is created, the value is not empty.
db_user_name	String	Default username.
vpc_id	String	VPC ID.
subnet_id	String	Network ID of the subnet.
security_group_id	String	Security group ID.
flavor_ref	String	Specification code.
flavor_info	MysqlFlavorInfo object	Flavor information.
volume	MysqlVolumeInfo object	Storage disk information.
backup_strategy	MysqlBackupStrategy object	Automated backup policy.
enterprise_project_id	String	Enterprise project ID.
time_zone	String	Time zone.
charge_info	MysqlChargeInfo object	Billing mode, which is yearly/monthly or pay-per-use (default setting).
dedicated_resource_id	String	Dedicated resource pool ID. This parameter is returned only when the instance belongs to a dedicated resource pool.
tags	Array of InstanceTagItem objects	Tag list.

Table 5-32 MysqlDatastoreWithKernelVersion

Parameter	Type	Description
type	String	DB engine. Currently, only gaussdb-mysql is supported.

Parameter	Type	Description
version	String	DB version. To obtain details about supported DB engine versions, call the API for querying the DB engine versions .
kernel_version	String	Database kernel version.

Table 5-33 MysqlFlavorInfo

Parameter	Type	Description
vcpus	String	Number of vCPUs.
ram	String	Memory size in GB.

Table 5-34 MysqlVolumeInfo

Parameter	Type	Description
type	String	Disk type.
size	String	Used disk size in GB.

Table 5-35 MysqlBackupStrategy

Parameter	Type	Description
start_time	String	Automated backup start time. The automated backup will be triggered within one hour after the time specified by this parameter. The value cannot be empty. It must be a valid value in the "hh:mm-HH:MM" format. The current time is in the UTC format. 1. The HH value must be 1 greater than the hh value. 2. The values of mm and MM must be the same and must be set to 00 .
keep_days	String	Automated backup retention days. Value range: 1-732 .

Table 5-36 MysqlChargeInfo

Parameter	Type	Description
charge_mode	String	Billing mode. Values: <ul style="list-style-type: none">● prePaid: indicates the yearly/monthly billing mode.● postPaid: indicates the pay-per-use billing mode.
period_type	String	Subscription period. This parameter is available and mandatory only when charge_mode is set to prePaid . Values: <ul style="list-style-type: none">● month: The service is subscribed by month.● year: The service is subscribed by year.
period_num	Integer	This parameter is valid and mandatory only when charge_mode is set to prePaid . Values: <ul style="list-style-type: none">● When period_type is set to month, the parameter value ranges from 1 to 9.● When period_type is set to year, the parameter value ranges from 1 to 3.
is_auto_renew	String	Whether automatic renewal is enabled for yearly/monthly DB instances. The renewal period is the same as the original period and the order will be automatically paid during the subscription renewal. <ul style="list-style-type: none">● true: indicates that automatic renewal is enabled.● false: indicates that automatic renewal is disabled. The default value is false.
is_auto_pay	String	Whether the order will be automatically paid after yearly/monthly instances are created. This parameter does not affect the payment method of automatic renewal. <ul style="list-style-type: none">● true: indicates the order will be automatically paid from your account. The default value is true.● false: indicates the order will be manually paid.

Table 5-37 InstanceTagItem

Parameter	Type	Description
key	String	Tag key.
value	String	Tag value.

Status code: 400

Table 5-38 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 5-39 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying TaurusDB instances whose private IP addresses are 192.168.0.142

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances?
id=61a4ea66210545909d74a05c27a7179ein07&name=hyAbc&type=Cluster&datastore_type=gaussdb-
mysql&vpc_id=19e5d45d-70fd-4a91-87e9-
b27e71c9891f&subnet_id=bd51fb45-2dcb-4296-8783-8623bfe89bb7&private_ip=192.168.0.142&offset=0&li
mit=10&tags=taurusKey1=value1
```

Example Response

Status code: 200

NOTE

The value of **region** is used as an example in the following response.

Success.

```
{
  "total_count": 1,
  "instances": [ {
    "id": "d738399de028480fab2b8120d4e01a4in07",
    "name": "gaussdb-mysql-instance01",
```

```
"status" : "ACTIVE",
"port" : 3306,
"type" : "Cluster",
"private_ips" : [ "192.168.0.142" ],
"db_user_name" : "root",
"region" : "aaa",
"datastore" : {
  "type" : "gaussdb-mysql",
  "version" : "8.0",
  "kernel_version" : "2.0.29.1"
},
"created" : "2018-08-20T02:33:49_0800",
"updated" : "2018-08-20T02:33:49_0800",
"volume" : {
  "type" : "POOL",
  "size" : 100
},
"vpc_id" : "3cedfc54-b105-4652-a4e0-847b11576b58",
"subnet_id" : "c1cfa53c-65d3-431e-8552-326bf310c7ad",
"security_group_id" : "fc577a1a-f202-424a-977f-24faec3fdd55",
"flavor_ref" : "gaussdb.mysql.xlarge.x86.4",
"flavor_info" : {
  "vcpus" : 4,
  "ram" : 16
},
"backup_strategy" : {
  "start_time" : "19:00-20:00",
  "keep_days" : 7
},
"charge_info" : {
  "charge_mode" : "postPaid"
},
"enterprise_project_id" : 0,
"time_zone" : "UTC",
"tags" : [ ]
} ]
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

5.3.4 Deleting a DB Instance

Function

This API is used to delete a DB instance.

NOTICE

This API will be unavailable on March 31, 2025. You are advised to switch workloads to the new API ([Deleting/Unsubscribing from a DB Instance](#)) before then.

- Learn how to [authorize and authenticate](#) it.

- Obtain the required [region and endpoint](#).

URI

- URI format
DELETE https://{endpoint}/mysql/v3/{project_id}/instances/{instance_id}
- Example
DELETE https://{endpoint}/mysql/v3/0483b6b16e954cb88930a360d2c4e663/instances/dsfae23fsfsae3435in01
- Parameter description

Table 5-40 Parameter description

Name	Mandatory	Description
project_id	Yes	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	Instance ID, which is compliant with the UUID format.

Request

None

Response

- Normal response

Table 5-41 Parameter description

Name	Type	Description
job_id	String	ID of the task for deleting a DB instance.

- Example normal response

```
{
  "job_id": "dff1d289-4d03-4942-8b9f-463ea07c000d"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

5.3.5 Querying Details of a DB Instance

Function

This API is used to query the details of a specified DB instance. Before calling this API:

NOTICE

This API will be unavailable on March 31, 2025.

URI

GET /v3/{project_id}/instances/{instance_id}

Table 5-42 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID.

Request Parameters

Table 5-43 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.

Parameter	Mandatory	Type	Description
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Response Parameters

Status code: 200

Table 5-44 Response body parameters

Parameter	Type	Description
instance	MysqlInstanceInfoDetail object	Instance information.

Table 5-45 MysqlInstanceInfoDetail

Parameter	Type	Description
id	String	Instance ID.
name	String	DB instance name.
project_id	String	Project ID of a tenant in a region.

Parameter	Type	Description
status	String	DB instance status. Values: <ul style="list-style-type: none"> ● BUILD: The DB instance is being created. ● ACTIVE: The DB instance is normal. ● FAILED: The DB instance is abnormal. ● FROZEN: The DB instance is frozen. ● MODIFYING: The DB instance is being scaled up. ● REBOOTING: The DB instance is being rebooted. ● RESTORING: The DB instance is being restored. ● MODIFYING INSTANCE TYPE: The DB instance is changing from primary to standby. ● SWITCHOVER: A primary/standby switchover is being performed. ● MIGRATING: The DB instance is being migrated. ● BACKING UP: The DB instance is being backed up. ● MODIFYING DATABASE PORT: The database port is being changed. ● STORAGE FULL: The DB instance storage space is full.
port	String	Database port.
alias	String	Instance remarks.
type	String	Instance type. The value is Cluster .
charge_info	MysqlInstanceChargeInfo object	Billing mode, which is yearly/monthly or pay-per-use (default setting).
node_count	Integer	Number of nodes.
datastore	MysqlDatastore object	Database information.
backup_used_space	Double	Used backup space in GB.

Parameter	Type	Description
created	String	Creation time in the "yyyy-mm-ddThh:mm:ssZ" format. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, in the Beijing time zone, the time zone offset is shown as +0800 . NOTE The value is empty when the DB instance is being created. After the DB instance is created, the value is not empty.
updated	String	Update time. The format is the same as that of the created field. NOTE The value is empty when the DB instance is being created. After the DB instance is created, the value is not empty.
private_write_ips	Array of strings	Private IP address for write.
private_dns_names	Array of strings	Private domain names of the instance. After a DB instance is created, you need to manually apply for a private domain name, or the private domain name is left blank.
public_ips	String	Public IP address of the instance.
db_username	String	Default username.
vpc_id	String	VPC ID.
subnet_id	String	Network ID of the subnet.
security_group_id	String	Security group ID.
configuration_id	String	ID of the parameter template used for creating an instance or ID of the latest parameter template that is applied to an instance.
backup_strategy	MysqlBackupStrategy object	Automated backup policy.
nodes	Array of MysqlInstanceNodeInfo objects	Node information.
enterprise_project_id	String	Enterprise project ID.
time_zone	String	Time zone.

Parameter	Type	Description
az_mode	String	AZ type. Values: <ul style="list-style-type: none"> • single: single AZ • multi: multiple AZs
master_az_code	String	Primary AZ.
maintenance_window	String	Maintenance window in the UTC format.
tags	Array of MysqlTags objects	Tags for managing instances.
dedicated_resource_id	String	Dedicated resource pool ID. This parameter is returned only when the instance belongs to a dedicated resource pool.
proxies	Array of MysqlProxyInfo objects	Proxy instance information.

Table 5-46 MysqlInstanceChargeInfo

Parameter	Type	Description
charge_mode	String	Billing mode.
order_id	String	Order ID.

Table 5-47 MysqlDatastoreWithKernelVersion

Parameter	Type	Description
type	String	DB engine. Currently, only gaussdb-mysql is supported.
version	String	DB version. For details about supported DB versions, see Querying Version Information About a DB Engine .
kernel_version	String	Database kernel version.

Table 5-48 MysqlBackupStrategy

Parameter	Type	Description
start_time	String	Automated backup start time. The automated backup will be triggered within one hour after the time specified by this parameter. The value cannot be empty. It must be a valid value in the "hh:mm-HH:MM" format. The current time is in the UTC format. 1. The HH value must be 1 greater than the hh value. 2. The values of mm and MM must be the same and must be set to 00 .
keep_days	String	Automated backup retention days. Value range: 1-732 .

Table 5-49 MysqlInstanceNodeInfo

Parameter	Type	Description
id	String	Instance ID.
name	String	Node name.
type	String	Node type. Values: <ul style="list-style-type: none"> • master: primary node • slave: read replica
status	String	Node status.
port	Integer	Database port.
private_read_ips	Array of strings	Private IP address for read of the node.
volume	MysqlInstanceNodeVolumeInfo object	Storage disk information.
az_code	String	AZ.
region_code	String	Region where the instance is located.

Parameter	Type	Description
created	String	Creation time in the "yyyy-mm-ddThh:mm:ssZ" format. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, in the Beijing time zone, the time zone offset is shown as +0800 . NOTE The value is empty when the DB instance is being created. After the DB instance is created, the value is not empty.
updated	String	Update time. The format is the same as that of the created field. NOTE The value is empty when the DB instance is being created. After the DB instance is created, the value is not empty.
flavor_id	String	Specification ID.
flavor_ref	String	Specification code.
max_connections	String	Maximum number of connections.
vcpus	String	Number of vCPUs.
ram	String	Memory size in GB.
need_restart	Boolean	Whether to reboot the instance for the parameter modifications to take effect.
priority	Integer	Failover priority.

Table 5-50 MysqlInstanceNodeVolumeInfo

Parameter	Type	Description
type	String	Disk type.
used	String	Used disk size in GB.
size	Long	Disk size of the yearly/monthly instance in GB

Table 5-51 MysqlTags

Parameter	Type	Description
key	String	Tag key. The value can contain a maximum of 36 Unicode characters. The value cannot be an empty string, a space, or left blank. Only uppercase letters, lowercase letters, digits, hyphens (-), and underscores (_) are allowed.
value	String	Tag value. It contains a maximum of 43 Unicode characters. The value can be an empty string. Only uppercase letters, lowercase letters, digits, periods (.), hyphens (-), and underscores (_) are allowed.

Table 5-52 MysqlProxyInfo

Parameter	Type	Description
pool_id	String	Proxy instance ID.
name	String	Proxy instance name.
address	String	Read/Write splitting address of a proxy instance

Status code: 400

Table 5-53 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 5-54 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying details of a specified DB instance

```
GET https://{endpoint}/v3/97b026aa9cc4417888c14c84a1ad9860/instances/  
436aaafb689c4250a9a5bb33cb271e8cin07
```

Example Response

Status code: 201

NOTE

The values of **region_code** and **az_code** are used as examples.

Success.

```
{  
  "instance": {  
    "id": "d738399de028480fabb2b8120d4e01a4in07",  
    "name": "gaussdb-mysql-instance01",  
    "alias": "",  
    "status": "ACTIVE",  
    "project_id": "3cedfc54-b105-4652-a4e0-847b11576628",  
    "enterprise_project_id": 0,  
    "type": "Cluster",  
    "charge_info": {  
      "charge_mode": "postPaid",  
      "order_id": ""  
    },  
    "node_count": 2,  
    "datastore": {  
      "type": "gaussdb-mysql",  
      "version": "8.0",  
      "kernel_version": "2.0.29.1"  
    },  
    "created": "2022-07-14T16:26:58+0800",  
    "updated": "2022-07-18T14:20:33+0800",  
    "public_ips": [ "10.154.219.187" ],  
    "private_write_ips": [ "192.168.0.142" ],  
    "private_dns_names": [ "d738399de028480fabb2b8120d4e01a4in07.internal.cn-  
xianhz-1.gaussdbformysql.myhuaweicloud.com" ],  
    "db_user_name": "root",  
    "port": 3306,  
    "vpc_id": "3cedfc54-b105-4652-a4e0-847b11576658",  
    "subnet_id": "c1cfa53c-65d3-431e-8552-326bf310c7ad",  
    "security_group_id": "fc577a1a-f202-424a-977f-24faec3fdd55",  
    "backup_strategy": {  
      "start_time": "19:00-20:00",  
      "keep_days": 7  
    },  
    "nodes": [ {  
      "id": "799a0f2fa49a4151bf9f7063c1fbba36no07",  
      "name": "gauss-d616-lb07_node01",  
      "type": "master",  
      "status": "ACTIVE",  
      "port": 3306,  
      "private_read_ips": [ "192.168.0.163" ],  
      "volume": {  
        "type": "POOL",  
        "used": 0.07  
      },  
      "az_code": "az1xahz",  
      "region_code": "cn-xianhz-1",  
      "flavor_id": "3169caaf-6c2f-41d5-aadd-c8fc3d83597e",  
      "flavor_ref": "gaussdb.mysql.xlarge.x86.4",  
      "max_connections": 1500,  
    }  
  ]  
}
```

```
"vcpus" : 4,
"ram" : 16,
"need_restart" : false,
"priority" : 1,
"created" : "2022-07-14T16:26:58+0800",
"updated" : "2022-07-18T09:24:18+0800"
}, {
  "id" : "799a0f2fa49a4151bf9f7063c1fbba35no07",
  "name" : "gauss-d616-lb07_node02",
  "type" : "slave",
  "status" : "ACTIVE",
  "port" : 3306,
  "private_read_ips" : [ "192.168.0.162" ],
  "volume" : {
    "type" : "POOL",
    "used" : 0.07
  },
  "az_code" : "az1xahz",
  "region_code" : "cn-xianhz-1",
  "flavor_id" : "3169caaf-6c2f-41d5-aadd-c8fc3d83597e",
  "flavor_ref" : "gaussdb.mysqlxlarge.arm.2.ha",
  "max_connections" : 1500,
  "vcpus" : 1,
  "ram" : 4,
  "need_restart" : false,
  "priority" : 1,
  "created" : "2022-07-14T16:26:58+0800",
  "updated" : "2022-07-18T09:36:18+0800"
}],
"time_zone" : "UTC+08:00",
"backup_used_space" : 0.24,
"az_mode" : "single",
"master_az_code" : "az1",
"maintenance_window" : "18:00-22:00",
"tags" : [],
"configuration_id" : "53570e0de54e40c5a15f331aa5sd2176pr07",
"dedicated_resource_id" : "",
"proxies" : [ {
  "pool_id" : "dab1cfc5150c4d1ca0e8c6596bfc0d8cpo01",
  "address" : "192.168.10.76",
  "name" : "proxy-name"
}
]
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

5.3.6 Querying Details of DB Instances in Batches

Function

This API is used to query details of DB instances in batches. Before calling this API:

NOTICE

This API will be unavailable on March 31, 2025.

URI

GET /v3/{project_id}/instances/details

Table 5-55 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .

Table 5-56 Query parameters

Parameter	Mandatory	Type	Description
instance_ids	Yes	String	Instance ID. A maximum of 20 instance IDs can be entered at a time. Separate them with commas (,).

Request Parameters

Table 5-57 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling the IAM API used to obtain a user token . The value of X-Subject-Token in the response header is the token value.
X-Language	No	String	Request language type. The default value is en-us . Values: <ul style="list-style-type: none">• en-us• zh-cn

Response Parameters

Status code: 200

Table 5-58 Response body parameters

Parameter	Type	Description
instances	Array of MysqlInstanceInfoDetail objects	Instance details.

Table 5-59 MysqlInstanceInfoDetail

Parameter	Type	Description
id	String	Instance ID.
name	String	Instance name.
project_id	String	Project ID of a tenant in a region.
status	String	Instance status. Values: <ul style="list-style-type: none"> • BUILD: The DB instance is being created. • ACTIVE: The DB instance is normal. • FAILED: The instance failed to be created. • FROZEN: The DB instance is frozen. • MODIFYING: The DB instance is being scaled up. • REBOOTING: The DB instance is being rebooted. • RESTORING: The DB instance is being restored. • SWITCHOVER: A primary/standby switchover is being performed. • MIGRATING: The DB instance is being migrated. • BACKING UP: The DB instance is being backed up. • MODIFYING DATABASE PORT: The database port is being changed. • STORAGE FULL: The DB instance storage space is full.
port	String	Database port.
alias	String	Instance remarks.

Parameter	Type	Description
type	String	Instance type. The value is Cluster .
charge_info	MysqlInstanceChargeInfo object	Billing mode, which is yearly/monthly or pay-per-use (default setting).
node_count	Integer	Number of nodes.
datastore	MysqlDatastoreWithKernelVersion object	Database information.
backup_used_space	Double	Used backup space in GB.
created	String	Creation time in the "yyyy-mm-ddThh:mm:ssZ" format. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, in the Beijing time zone, the time zone offset is shown as +0800 . NOTE The value is empty when the DB instance is being created. After the DB instance is created, the value is not empty.
updated	String	Update time. The format is the same as that of the created field. NOTE The value is empty when the DB instance is being created. After the DB instance is created, the value is not empty.
private_write_ips	Array of strings	Private IP address for write.
private_dns_names	Array of strings	Private domain names of the instance. After a DB instance is created, you need to manually apply for a private domain name, or the private domain name is left blank.
public_ips	String	Public IP address of the instance.
db_username	String	Default username.
vpc_id	String	VPC ID.
subnet_id	String	Network ID of the subnet.
security_group_id	String	Security group ID.

Parameter	Type	Description
configuration_id	String	ID of the parameter template used for creating an instance or ID of the latest parameter template that is applied to an instance.
backup_strategy	MysqlBackupStrategy object	Automated backup policy.
nodes	Array of MysqlInstanceNodeInfo objects	Node information.
enterprise_project_id	String	Enterprise project ID.
time_zone	String	Time zone.
az_mode	String	AZ type. Values: <ul style="list-style-type: none"> • single: single AZ • multi: multiple AZs
master_az_code	String	Primary AZ.
maintenance_window	String	Maintenance window in the UTC format.
tags	Array of MysqlTags objects	Tags for managing instances.
dedicated_resource_id	String	Dedicated resource pool ID. This parameter is returned only when the instance belongs to a dedicated resource pool.
proxies	Array of MysqlProxyInfo objects	Proxy instance information.

Table 5-60 MysqlInstanceChargeInfo

Parameter	Type	Description
charge_mode	String	Billing mode.
order_id	String	Order ID.

Table 5-61 MysqlDatastoreWithKernelVersion

Parameter	Type	Description
type	String	DB engine. Currently, only gaussdb-mysql is supported.
version	String	DB version. For details about supported DB versions, see Querying Version Information About a DB Engine .
kernel_version	String	Database kernel version.

Table 5-62 MysqlBackupStrategy

Parameter	Type	Description
start_time	String	Automated backup start time. The automated backup will be triggered within one hour after the time specified by this parameter. The value cannot be empty. It must be a valid value in the "hh:mm-HH:MM" format. The current time is in the UTC format. <ol style="list-style-type: none">1. The HH value must be 1 greater than the hh value.2. The values of mm and MM must be the same and must be set to 00.
keep_days	String	Automated backup retention days. Value range: 1-732 .

Table 5-63 MysqlInstanceNodeInfo

Parameter	Type	Description
id	String	Instance ID.
name	String	Node name.
type	String	Node type. Values: <ul style="list-style-type: none"> • master: primary node • slave: read replica
status	String	Node status.

Parameter	Type	Description
port	Integer	Database port.
private_read_ips	Array of strings	Private IP address for read of the node.
volume	MysqlInstanceNodeVolumeInfo object	Storage disk information.
az_code	String	AZ.
region_code	String	Region where the instance is located.
created	String	Creation time in the "yyyy-mm-ddThh:mm:ssZ" format. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, in the Beijing time zone, the time zone offset is shown as +0800 . NOTE The value is empty when the DB instance is being created. After the DB instance is created, the value is not empty.
updated	String	Update time. The format is the same as that of the created field. NOTE The value is empty when the DB instance is being created. After the DB instance is created, the value is not empty.
flavor_id	String	Specification ID.
flavor_ref	String	Specification code.
max_connections	String	Maximum number of connections.
vcpus	String	Number of vCPUs.
ram	String	Memory size in GB.
need_restart	Boolean	Whether to reboot the instance for the parameter modifications to take effect.
priority	Integer	Failover priority.

Table 5-64 MysqlInstanceNodeVolumeInfo

Parameter	Type	Description
type	String	Disk type.
used	String	Used disk size in GB.
size	Long	Disk size of the yearly/monthly instance in GB

Table 5-65 MysqlTags

Parameter	Type	Description
key	String	Tag key. The value can contain a maximum of 36 Unicode characters. The value cannot be an empty string, a space, or left blank. Only uppercase letters, lowercase letters, digits, hyphens (-), and underscores (_) are allowed.
value	String	Tag value. It contains a maximum of 43 Unicode characters. The value can be an empty string. Only uppercase letters, lowercase letters, digits, periods (.), hyphens (-), and underscores (_) are allowed.

Table 5-66 MysqlProxyInfo

Parameter	Type	Description
pool_id	String	Proxy instance ID.
name	String	Proxy instance name.
address	String	Read/Write splitting address of a proxy instance

Status code: 400**Table 5-67** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 5-68 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

Querying details of DB instances in batches

```
GET https://{endpoint}/v3/97b026aa9cc4417888c14c84a1ad9860/instances/details?instance_ids=436aaafb689c4250a9a5bb33cb271e8cin07,d738399de028480fabb2b8120d4e01a4in07
```

Example Response

Status code: 200

Success.

```
{
  "instances": [ {
    "id": "d738399de028480fabb2b8120d4e01a4in07",
    "name": "gaussdb-mysql-instance01",
    "alias": "",
    "status": "ACTIVE",
    "project_id": "3cedfc54-b105-4652-a4e0-847b11576628",
    "enterprise_project_id": 0,
    "type": "Cluster",
    "charge_info": {
      "charge_mode": "postPaid",
      "order_id": ""
    },
  },
  "node_count": 2,
  "datastore": {
    "type": "gaussdb-mysql",
    "version": "8.0",
    "kernel_version": "2.0.29.1"
  },
  "created": "2022-07-14T16:26:58+0800",
  "updated": "2022-07-18T14:20:33+0800",
  "public_ips": [ "10.154.219.187" ],
  "private_write_ips": [ "192.168.0.142" ],
  "private_dns_names": [ "11684a0e59e94bceba7880d58cfb07b5in07.internal.cn-xianhz-1.gaussdbformysql.myhuaweicloud.com" ],
  "db_user_name": "root",
  "port": 3306,
  "vpc_id": "3cedfc54-b105-4652-a4e0-847b11576b58",
  "subnet_id": "c1cfa53c-65d3-431e-8552-326bf310c7ad",
  "security_group_id": "fc577a1a-f202-424a-977f-24faec3fdd55",
  "backup_strategy": {
    "start_time": "19:00-20:00",
    "keep_days": 7
  },
  "nodes": [ {
    "id": "799a0f2fa49a4151bf9f7063c1fbba36no07",
    "name": "gauss-d616-lb07_node01",
    "type": "master",
    "status": "ACTIVE",
    "port": 3306,
    "private_read_ips": [ "192.168.0.163" ],
    "volume": {
      "type": "POOL",
```

```
    "used" : 0.07
  },
  "az_code" : "az1xahz",
  "region_code" : "cn-xianhz-1",
  "flavor_id" : "3169caaf-6c2f-41d5-aadd-c8fc3d83597e",
  "flavor_ref" : "gaussdb.mysql.xlarge.x86.4",
  "max_connections" : 1500,
  "vcpus" : 4,
  "ram" : 16,
  "need_restart" : false,
  "priority" : 1,
  "created" : "2022-07-14T16:26:58+0800",
  "updated" : "2022-07-18T09:24:18+0800"
}, {
  "id" : "799a0f2fa49a4151bf9f7063c1fbba35no07",
  "name" : "gauss-d616-lb07_node02",
  "type" : "slave",
  "status" : "ACTIVE",
  "port" : 3306,
  "private_read_ips" : [ "192.168.0.162" ],
  "volume" : {
    "type" : "POOL",
    "used" : 0.07
  },
  "az_code" : "az1xahz",
  "region_code" : "cn-xianhz-1",
  "flavor_id" : "3169caaf-6c2f-41d5-aadd-c8fc3d83597e",
  "flavor_ref" : "gaussdb.mysql.xlarge.x86.4",
  "max_connections" : 1500,
  "vcpus" : 4,
  "ram" : 16,
  "need_restart" : false,
  "priority" : 1,
  "created" : "2022-07-14T16:26:58+0800",
  "updated" : "2022-07-18T09:36:18+0800"
}],
"time_zone" : "UTC+08:00",
"backup_used_space" : 0.24,
"az_mode" : "single",
"master_az_code" : "az1",
"maintenance_window" : "18:00-22:00",
"tags" : [],
"configuration_id" : "53570e0de54e40c5a15f331aa5sd2176pr07",
"dedicated_resource_id" : "",
"proxies" : [ {
  "pool_id" : "dab1cfc5150c4d1ca0e8c6596bfc0d8cpo01",
  "address" : "192.168.10.76",
  "name" : "proxy-name"
} ]
} ]
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

5.3.7 Querying Details of a DB Instance

Function

This API is used to query the details of a specified DB instance. Before calling this API:

NOTICE

This API will be unavailable on March 31, 2025. You are advised to switch workloads to the new API ([Querying Details of a DB Instance](#)) before then.

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

- URI format
GET https://{endpoint}/mysql/v3/{project_id}/instances/{instance_id}
- Example
GET https://{endpoint}/mysql/v3/97b026aa9cc4417888c14c84a1ad9860/instances/436aaafb689c4250a9a5bb33cb271e8cin07
- Parameter description

Table 5-69 Parameter description

Name	Type	Mandatory	Description
project_id	String	Yes	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	String	Yes	DB instance ID.

Request

None.

Response

- Normal response

Table 5-70 Parameter description

Name	Type	Description
instance	Object	Instance information. For details, see Table 5-71 .

Table 5-71 instance field data structure description

Name	Type	Description
id	String	DB instance ID.
name	String	DB instance name.
project_id	String	Project ID of a tenant in a region.

Name	Type	Description
status	String	<p>DB instance status.</p> <p>Values:</p> <p>If the value is BUILD, the DB instance is being created.</p> <p>If the value is ACTIVE, the DB instance is normal.</p> <p>If the value is FAILED, the DB instance is abnormal.</p> <p>If the value is FROZEN, the DB instance is frozen.</p> <p>If the value is MODIFYING, the DB instance is being scaled up.</p> <p>If the value is REBOOTING, the DB instance is being rebooted.</p> <p>If the value is RESTORING, the DB instance is being restored.</p> <p>If the value is MODIFYING INSTANCE TYPE, the DB instance is changing from primary to standby.</p> <p>If the value is SWITCHOVER, the primary/standby switchover is being performed.</p> <p>If the value is MIGRATING, the DB instance is being migrated.</p> <p>If the value is BACKING UP, the DB instance is being backed up.</p> <p>If the value is MODIFYING DATABASE PORT, the database port is being changed.</p> <p>If the value is STORAGE FULL, the instance storage space is full.</p>
enterprise_project_id	String	Enterprise project ID.
type	String	DB instance type. Currently, only the cluster type is supported.
node_count	Integer	Number of nodes.
datastore	Object	Database information. For details, see Table 5-72 .
backup_used_space	Double	Used backup space in GB.

Name	Type	Description
created	String	Creation time in the "yyyy-mm-ddThh:mm:ssZ" format. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, in the Beijing time zone, the time zone offset is shown as +0800 . The value is empty unless the instance creation is complete.
updated	String	Update time. The format is the same as that of the created field. The value is empty unless the instance creation is complete.
public_ips	String	Public IP address of the instance.
private_write_ips	Array of Lists	Private IP address for write.
db_user_name	String	Default username.
port	String	Database port.
vpc_id	String	VPC ID.
subnet_id	String	Network ID of the subnet.
security_group_id	String	Security group ID.
volume	Object	Disk information. For details, see Table 5-75 .
backup_strategy	Object	Backup policy. For details, see Table 5-73 .
nodes	Arrays of object	Node information. For details, see Table 5-74 .
time_zone	String	Time zone.
az_mode	String	AZ type. It can be single or multi .
master_az_code	String	Primary AZ.
maintenance_window	String	Maintenance window in the UTC format.
configuration_id	String	ID of the parameter template used for creating an instance or ID of the latest parameter template that is applied to an instance.
tags	Arrays of object	Tags for managing instances. For details, see Table 5-76 .

Table 5-72 datastore field data structure description

Name	Type	Description
type	String	DB engine.
version	String	DB version.

Table 5-73 backup_strategy field data structure description

Name	Type	Description
start_time	String	Backup time window. Automated backups will be triggered during the backup time window.
keep_days	Integer	Backup retention days.

Table 5-74 nodes field data structure description

Name	Type	Description
id	String	Node ID.
name	Array of object	Node name.
type	String	Node type, which can be master or slave .
status	String	Node status.
port	Integer	Database port.
private_read_ips	Array of String	Private IP address for read.
volume	Object	Disk information.
az_code	String	AZ.
region_code	String	Region where the DB instance is deployed.
created	String	DB instance creation time.
updated	String	Update time.
flavor_ref	String	Specification code. For details, see Table 5-6 .
max_connections	String	Maximum number of connections.

Name	Type	Description
vcpus	String	Number of vCPUs.
ram	String	Memory size in GB.
need_restart	Boolean	Whether to reboot the DB instance for the modifications to take effect.
priority	String	Failover priority.

Table 5-75 volume field data structure description

Name	Type	Description
type	String	Storage type. Currently, only POOL is supported.
used	String	Used storage size in GB.

Table 5-76 tags field data structure description

Name	Type	Description
type	String	Tag key. The value can contain a maximum of 36 Unicode characters. The value cannot be an empty string, a space, or left blank. Only uppercase letters, lowercase letters, digits, hyphens (-), and underscores (_) are allowed.
used	String	Tag value. The value contains a maximum of 43 Unicode characters and can also be an empty string. Only uppercase letters, lowercase letters, digits, periods (.), hyphens (-), and underscores (_) are allowed.

 **NOTE**

The values of **region_code** and **az_code** are used as examples.

- Example normal response

```
{
  "instance": {
    "id": "d2cda7b97a39488e8b30e3cea4066204in07",
    "name": "gauss-d616-lb07",
    "status": "FAILED",
    "project_id": "053f533ead80d5102f0cc012e8d468a4",
    "enterprise_project_id": "0",
    "type": "Cluster",
    "charge_info": {
```

```
"charge_mode": "postPaid",
"order_id": ""
},
"node_count": 2,
"datastore": {
  "type": "GaussDB(for MySQL)",
  "version": "8.0"
},
"created": "2020-07-21T09:13:56+0800",
"updated": "2020-07-21T09:27:54+0800",
"public_ips": "",
"private_write_ips": [
  "192.168.0.235"
],
"db_user_name": "root",
"port": "3306",
"vpc_id": "f7ee62e2-9705-4523-ba49-a85ea1a1fa87",
"subnet_id": "140af7bf-a9da-4dcf-8837-34199fd6d186",
"security_group_id": "c7f69884-fe2b-4630-8114-70a11499d902",
"backup_strategy": {
  "start_time": "00:00-00:00",
  "keep_days": "0"
},
"nodes": [
  {
    "id": "799a0f2fa49a4151bf9f7063c1fbba36no07",
    "name": "gauss-d616-lb07_node01",
    "type": "master",
    "status": "FAILED",
    "port": 3306,
    "private_read_ips": [
      "192.168.0.163"
    ],
    "volume": {
      "type": "POOL",
      "used": "0.0"
    },
    "az_code": "az1xahz",
    "region_code": "cn-xianhz-1",
    "flavor_id": "3169caaf-6c2f-41d5-aadd-c8fc3d83597e",
    "flavor_ref": "gaussdb.large.4",
    "max_connections": null,
    "vcpus": "1",
    "ram": "4",
    "need_restart": false,
    "priority": 1
  },
  {
    "id": "816459d771c444db9fa4c1d5c173cb1cno07",
    "name": "gauss-d616-lb07_node02",
    "type": "slave",
    "status": "FAILED",
    "port": 3306,
    "private_read_ips": [
      "192.168.0.160"
    ],
    "volume": {
      "type": "POOL",
      "used": "0.0"
    },
    "az_code": "az1xahz",
    "region_code": "cn-xianhz-1",
```

```
"flavor_id": "3169caaf-6c2f-41d5-aadd-c8fc3d83597e",  
"flavor_ref": "gaussbdb.large.4",  
"max_connections": null,  
"vcpus": "1",  
"ram": "4",  
"need_restart": false,  
"priority": 1  
}  
],  
"time_zone": "UTC+08:00",  
"backup_used_space": 0,  
"az_mode": "single",  
"master_az_code": "az1xahz",  
"maintenance_window": "18:00-22:00"  
}  
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

5.3.8 Creating a Read Replica

Function

This API is used to create a read replica. Before calling this API:

NOTICE

This API will be unavailable on March 31, 2025. You are advised to switch workloads to the new API ([Creating a Read Replica](#)) before then.

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

- URI format
POST https://{endpoint}/mysql/v3/{project_id}/instances/{instance_id}/nodes/enlarge
- Example
POST https://{endpoint}/mysql/v3/0483b6b16e954cb88930a360d2c4e663/instances/dsfae23fsfdsae3435in01/nodes/enlarge
- Parameter description

Table 5-77 Parameter description

Name	Mandatory	Description
project_id	Yes	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	Instance ID, which is compliant with the UUID format.

Request

Table 5-78 Parameter description

Name	Mandatory	Type	Description
priorities	Yes	List<Integer>	Failover priority of a read replica. Failover priority ranges from 1 for the first priority to 16 for the last priority. This priority determines the order in which read replicas are promoted when recovering from a primary node failure. Read replicas with the same priority have a same probability of being promoted to the new primary node.
is_auto_pay	No	String	Whether the order will be automatically paid after yearly/monthly instances are created. <ul style="list-style-type: none"> true: indicates the order will be automatically paid from your account. The default value is true. false: indicates the order will be manually paid.

- Request example

```
{
  "priorities": [1],
}
```

Response

- Normal response

Table 5-79 Parameter description

Name	Type	Description
instance_id	String	DB instance ID.
node_names	List<String>	Node name.
job_id	String	ID of the task for creating a read replica.
order_id	String	Order ID. This parameter is returned only when yearly/monthly instances are created.

- Example normal response

```
{
  "instance_id":"f381d0b539e644df8f5b0d3a62129515in07",
  "node_names":["gauss-ccf5_node03"],
  "job_id":"0f6b6a9e-bd39-4e95-9374-e4d134e5a3d1"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

5.3.9 Deleting a Read Replica

Function

This API is used to delete a read replica. For multi-AZ deployment, the primary node and remaining read replicas must be located in different AZs after read replicas are deleted. Before calling this API:

NOTICE

This API will be unavailable on March 31, 2025. You are advised to switch workloads to the new API ([Deleting or Unsubscribing from a Read Replica](#)) before then.

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

- URI format

DELETE https://{endpoint}/mysql/v3/{project_id}/instances/{instance_id}/nodes/{node_id}

- Example
DELETE https://{endpoint}/mysql/v3/0483b6b16e954cb88930a360d2c4e663/instances/dsfae23fsdsae3435in01/nodes/d11ae66fsdsaer3w3ino9
- Parameter description

Table 5-80 Parameter description

Name	Mandatory	Description
project_id	Yes	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	Instance ID, which is compliant with the UUID format.
node_id	Yes	Read-only node ID, which is compliant with the UUID format.

Request

None

Response

- Normal response

Table 5-81 Parameter description

Name	Type	Description
job_id	String	ID of the task for deleting a read replica.

- Example normal response

```
{
  "job_id": "dff1d289-4d03-4942-8b9f-463ea07c000d"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

5.3.10 Scaling up Storage of a Yearly/Monthly DB Instance

Function

This API is used to scale up storage space of a yearly/monthly DB instance. Before calling this API:

NOTICE

This API will be unavailable on March 31, 2025. You are advised to switch workloads to the new API ([Scaling up Storage of a Yearly/Monthly DB Instance](#)) before then.

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

- URI format
POST https://{endpoint}/mysql/v3/{project_id}/instances/{instance_id}/volume/extend
- Example
POST https://{endpoint}/mysql/v3/0483b6b16e954cb88930a360d2c4e663/instances/dsfae23fsfdsae3435in01/volume/extend
- Parameter description

Table 5-82 Parameter description

Name	Mandatory	Description
project_id	Yes	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	Instance ID, which is compliant with the UUID format.

Request

Table 5-83 Parameter description

Name	Mandatory	Type	Description
size	Yes	Integer	Storage space after expansion. The value ranges from 40 GB to 128,000 GB. The minimum increment for each scaling is 10 GB.
is_auto_pay	No	String	Whether the order will be automatically paid. <ul style="list-style-type: none"> true: indicates the order will be automatically paid from your account. The default value is true. false: indicates the order will be manually paid.

- Request example

```
{
  "size":50,
  "is_auto_pay":"true"
}
```

Response

- Normal response

Table 5-84 Parameter description

Name	Type	Description
size	Integer	Storage space after expansion.
order_id	String	Order ID.

- Example normal response

```
{
  "size":50,
  "order_id": "CS2006231950I8NQA"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

5.3.11 Changing a DB Instance Name

Function

This API is used to change a DB instance name. Before calling this API:

NOTICE

This API will be unavailable on March 31, 2025. You are advised to switch workloads to the new API ([Changing a DB Instance Name](#)) before then.

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

- URI format
PUT https://{endpoint}/mysql/v3/{project_id}/instances/{instance_id}/name
- Example
PUT https://{endpoint}/mysql/v3/97b026aa9cc4417888c14c84a1ad9860/instances/c3ec2c6148ad4d71b1a8411a62df0d3cin07/name
- Parameter description

Table 5-85 Parameter description

Name	Type	Mandatory	Description
project_id	String	Yes	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	String	Yes	DB instance ID.

Request

Table 5-86 Parameter description

Name	Type	Man dato ry	Description
name	String	Yes	DB instance name. Instances of the same type can have same names under the same tenant. The value consists of 4 to 64 characters and starts with a letter. It is case-sensitive and contains only letters, digits, hyphens (-), and underscores (_).

- Request example

```
{
  "name": "gaussdb-name"
}
```

Response

- Normal response

Table 5-87 Parameter description

Name	Type	Description
job_id	String	Task ID for changing an instance name.

- Example normal response

```
{
  "job_id": "0f6b6a9e-bd39-4e95-9374-e4d134e5a3d1"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

5.3.12 Resetting a Database Password

Function

This API is used to reset a database password. Before calling this API:

NOTICE

This API will be unavailable on March 31, 2025. You are advised to switch workloads to the new API ([Resetting a Database Password](#)) before then.

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

- URI format
POST https://{endpoint}/mysql/v3/{project_id}/instances/{instance_id}/password
- Example
POST https://{endpoint}/mysql/v3/97b026aa9cc4417888c14c84a1ad9860/instances/c3ec2c6148ad4d71b1a8411a62df0d3cin07/password
- Parameter description

Table 5-88 Parameter description

Name	Type	Mandatory	Description
project_id	String	Yes	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	String	No	DB instance ID.

Request

Table 5-89 Parameter description

Name	Type	Mandatory	Description
password	String	Yes	<p>Database password.</p> <p>Values:</p> <p>The password consists of 8 to 32 characters and contains at least three types of the following: uppercase letters, lowercase letters, digits, and special characters ~!@#%&^*-_=?&(),&</p> <p>You are advised to enter a strong password to improve security and prevent security risks such as brute force cracking. If you enter a weak password, the system automatically determines that the password is invalid.</p>

- Request example

```
{
  "password": "Test_345612"
}
```

Response

- Normal response
None
- Example normal response
{}

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

5.3.13 Modifying DB Instance Specifications

Function

This API is used to change DB instance specifications. Before calling this API:

NOTICE

This API will be unavailable on March 31, 2025. You are advised to switch workloads to the new API ([Changing DB Instance Specifications](#)) before then.

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

- URI format
POST https://{endpoint}/mysql/v3/{project_id}/instances/{instance_id}/action
- Example
POST https://{endpoint}/mysql/v3/97b026aa9cc4417888c14c84a1ad9860/instances/c3ec2c6148ad4d71b1a8411a62df0d3cin07/action
- Parameter description

Table 5-90 Parameter description

Name	Type	Mandatory	Description
project_id	String	Yes	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	String	No	DB instance ID.

Request

Table 5-91 Parameter description

Name	Type	Mandatory	Description
resize_flavor	Object	Yes	For details, see Table 5-92 .

Name	Type	Mandatory	Description
is_auto_pay	String	No	Whether the order will be automatically paid when the specifications of yearly/monthly instances are changed. <ul style="list-style-type: none"> true: indicates the order will be automatically paid from your account. The default value is true. false: indicates the order will be manually paid.

Table 5-92 resize_flavor field data structure description

Name	Type	Mandatory	Description
spec_code	String	Yes	Specification code.

- Request example

```

{
  "resize_flavor": {
    "spec_code": "gaussdb.large.4"
  }
}

```

Response

- Normal response

Table 5-93 Parameter description

Name	Type	Description
job_id	String	Job ID for changing DB instance specifications. This parameter is returned only when you change the specifications of a pay-per-use DB instance.

Name	Type	Description
order_id	String	Order ID for changing DB instance specifications. This parameter is returned only when you change the specification of a yearly/monthly DB instance.

- Example normal response

```
{
  "job_id": "0f6b6a9e-bd39-4e95-9374-e4d134e5a3d1"
}
```

Example Request

Changing instance specifications

```
POST https://{endpoint}/mysql/v3/97b026aa9cc4417888c14c84a1ad9860/instances/
ba62a0b83a1b42bfab275829d86ac0fdin07/action
{
  "resize_flavor" : {
    "spec_code": "taurus.large.4"
  }
}
```

Example Response

None

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

5.4 Backup Management

5.4.1 Modifying the Automated Backup Policy

Function

This API is used to modify the automated backup policy. Before calling this API:

NOTICE

This API will be unavailable on March 31, 2025. You are advised to switch workloads to the new API ([Configuring a Same-Region Backup Policy](#)) before then.

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

- URI format
PUT `https://{endpoint}/mysql/v3/{project_id}/instances/{instance_id}/backups/policy/update`
- Example
PUT `https://{endpoint}/mysql/v3/97b026aa9cc4417888c14c84a1ad9860/instances/c3ec2c6148ad4d71b1a8411a62df0d3cin07/backups/policy/update`
- Parameter description

Table 5-94 Parameter description

Name	Type	Mandatory	Description
project_id	String	Yes	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	String	No	DB instance ID.

Request

Table 5-95 Parameter description

Name	Type	Mandatory	Description
backup_policy	object	Yes	Backup policy information. For details, see Table 5-96 .

Table 5-96 backup_policy field data structure description

Name	Type	Mandatory	Description
keep_days	Integer	Yes	Backup retention days. Value range: 1–732.

Name	Type	Mandatory	Description
start_time	String	Yes	<p>Backup time window. Automated backups will be triggered during the backup time window.</p> <p>The value cannot be empty. It must be a valid value in the "hh:mm-HH:MM" format. The current time is in the UTC format.</p> <ul style="list-style-type: none"> The HH value must be 1 greater than the hh value. The values of mm and MM must be the same and must be set to 00. <p>Example value:</p> <ul style="list-style-type: none"> 21:00-22:00
period	String	Yes	<p>Backup cycle configuration. Data will be automatically backed up on the selected days every week.</p> <p>The value is a number separated by commas (,), indicating the days of the week.</p> <p>For example, the value 1,2,3,4 indicates that the backup period is Monday, Tuesday, Wednesday, and Thursday.</p>
retention_num_backup_level1	Integer	No	<p>Number of retained level-1 backups. The default value is 0. This parameter is mandatory when the level-1 backup function is enabled. This parameter is unavailable when the level-1 backup function is disabled. Values:</p> <ul style="list-style-type: none"> 0 1

- Request example

```
{
  "backup_policy": {
    "keep_days": 7,
    "start_time": "19:00-20:00",
    "period": "1,2,3,4,5"
  }
}
```

Response

- Normal response

Table 5-97 Parameter description

Name	Type	Description
status	String	Backup status. Values: <ul style="list-style-type: none">• BUILDING: Modification in progress• COMPLETED: Modification completed• FAILED: Modification failed
instance_id	String	DB instance ID.
instance_name	String	DB instance name.

- Example normal response

```
{
  "status": "COMPLETED",
  "instance_id": "ef25188419f941309882d2986b2210b9in07",
  "instance_name": "gauss-fhc"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

5.4.2 Creating a Manual Backup

Function

This API is used to create a manual backup. Before calling this API:

NOTICE

This API will be unavailable on March 31, 2025. You are advised to switch workloads to the new API ([Creating a Manual Backup](#)) before then.

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

- URI format
POST https://{endpoint}/mysql/v3/{project_id}/backups/create
- Example
POST https://{endpoint}/mysql/v3/0483b6b16e954cb88930a360d2c4e663/backups/create
- Parameter description

Table 5-98 Parameter description

Name	Mandatory	Description
project_id	Yes	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .

Request

Table 5-99 Parameter description

Name	Mandatory	Type	Description
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.
name	Yes	String	Backup name. The value consists of 4 to 64 characters and starts with a letter. It is case-sensitive and contains only letters, digits, hyphens (-), and underscores (_).
description	No	String	Backup description. It contains up to 256 characters and cannot contain the following special characters: >!<"&'=

- Request example


```
{
  "instance_id": "d8e6ca5a624745bcb546a227aa3ae1cfin01",
  "name": "backup-1",
  "description": "manual backup"
}
```

Response

- Normal response

Table 5-100 Parameter description

Name	Type	Description
backup	Object	Backup information. For details, see Table 5-101 .

Table 5-101 backup field data structure description

Name	Type	Description
id	String	Backup ID.
name	String	Backup name.
description	String	Backup description.
begin_time	String	Backup start time in the "yyyy-mm-ddThh:mm:ssZ" format, where "T" indicates the start time of the time field, and "Z" indicates the time zone offset.
status	String	Backup status. Values: <ul style="list-style-type: none"> • BUILDING: Backup in progress • COMPLETED: Backup completed • FAILED: Backup failed • AVAILABLE: Backup available
type	String	Backup type. Value: <ul style="list-style-type: none"> • manual: manual full backup
instance_id	String	DB instance ID.

- Example normal response

```
{
  "backup": {
    "id": "2f4ddb93-b901-4b08-93d8-1d2e472f30fe",
    "name": "backup-1",
    "begin_time": "2020-07-07T01:17:05+0800",
    "status": "BUILDING",
    "type": "manual",
    "instance_id": "d8e6ca5a624745bcb546a227aa3ae1cfin01",
    "description": "desc"
  }
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

5.4.3 Querying Backups

Function

This API is used to query backups according to search criteria. Before calling this API:

NOTICE

This API will be unavailable on March 31, 2025. You are advised to switch workloads to the new API ([Querying Full Backups](#)) before then.

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

- URI format
GET `https://{endpoint}/mysql/v3/{project_id}/backups?instance_id={instance_id}&backup_id={backup_id}&backup_type={backup_type}&offset={offset}&limit={limit}&begin_time={begin_time}&end_time={end_time}`
- Example
GET `https://{endpoint}/mysql/v3/97b026aa9cc4417888c14c84a1ad9860/backups?instance_id=c3ec2c6148ad4d71b1a8411a62df0d3cin07&backup_id=43e4feaab48f11e89039fa163ebaa7e4br01&backup_type=auto&offset=0&limit=10&begin_time=2020-07-06T10:41:14+0800&end_time=2020-07-16T10:41:14+0800`
- Parameter description

Table 5-102 Parameter description

Name	Type	Mandatory	Description
project_id	String	Yes	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	String	No	DB instance ID.
backup_id	String	No	Backup ID.

Name	Type	Mandatory	Description
backup_type	String	No	Backup type. Values: <ul style="list-style-type: none"> • auto: automated full backup • manual: manual full backup
offset	String	No	Index offset. If offset is set to <i>N</i> , the resource query starts from the <i>N</i> +1 piece of data. The value is 0 by default, indicating that the query starts from the first piece of data. The value cannot be a negative number.
limit	String	No	Number of records to be queried. The default value is 100 . The value must be a positive integer. The minimum value is 1 and the maximum value is 100 .
begin_time	String	No	Query start time. The format is "yyyy-mm-ddThh:mm:ssZ". T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, in the Beijing time zone, the time zone offset is shown as +0800 .
end_time	String	No	Query end time. The format is "yyyy-mm-ddThh:mm:ssZ" and the end time must be later than the start time. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, in the Beijing time zone, the time zone offset is shown as +0800 .

Request

None

Response

- Normal response

Table 5-103 Parameter description

Name	Type	Description
backups	Array of objects	Backup information. For details, see Table 5-104 .

Name	Type	Description
total_count	Integer	Total number of records.

Table 5-104 backups field data structure description

Name	Type	Description
id	String	Backup ID.
name	String	Backup name.
begin_time	String	Backup start time in the "yyyy-mm-ddThh:mm:ssZ" format. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, in the Beijing time zone, the time zone offset is shown as +0800 .
end_time	String	Backup end time in the "yyyy-mm-ddThh:mm:ssZ" format. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, in the Beijing time zone, the time zone offset is shown as +0800 .
status	String	Backup status. Values: <ul style="list-style-type: none"> • BUILDING: Backup in progress • COMPLETED: Backup completed • FAILED: Backup failed • AVAILABLE: Backup available
take_up_time	Integer	Backup duration in minutes.
type	String	Backup type. Values: <ul style="list-style-type: none"> • auto: automated full backup • manual: manual full backup
size	Double	Backup size in MB.
datastore	Object	Database information. For details, see Table 5-105 .
instance_id	String	DB instance ID.

Name	Type	Description
backup_level	String	Backup level. This parameter is returned when the level-1 backup function is enabled. Values: <ul style="list-style-type: none"> • 1: level-1 backup • 2: level-2 backup • 0: Backup being created or creation failed

Table 5-105 datastore field data structure description

Name	Type	Description
type	String	DB engine.
version	String	DB version.

- Example normal response

```
{
  "backups": [{
    "id": "43e4feaab48f11e89039fa163ebaa7e4br01",
    "name": "TaurusDB-gauss-e747-20200705185048266",
    "begin_time": "2018-08-06T12:41:14+0800",
    "end_time": "2018-08-06T12:45:14+0800",
    "take_up_time": 2,
    "status": "COMPLETED",
    "type": "auto",
    "size": 2803,
    "datastore": {
      "type": "gaussdb-mysql",
      "version": "8.0"
    },
    "instance_id": "c3ec2c6148ad4d71b1a8411a62df0d3cin07",
    "backup_level": "2"
  }],
  "total_count": 1
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

5.4.4 Querying an Automated Backup Policy

Function

This API is used to query an automated backup policy. Before calling this API:

NOTICE

This API will be unavailable on March 31, 2025. You are advised to switch workloads to the new API ([Querying an Automated Backup Policy](#)) before then.

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

- URI format
GET https://{endpoint}/mysql/v3/{project_id}/instances/{instance_id}/backups/policy
- Example
GET https://{endpoint}/mysql/v3/97b026aa9cc4417888c14c84a1ad9860/instances/c3ec2c6148ad4d71b1a8411a62df0d3cin07/backups/policy
- Parameter description

Table 5-106 Parameter description

Name	Type	Mandatory	Description
project_id	String	Yes	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	String	Yes	DB instance ID.

Request

None

Response

- Normal response

Table 5-107 Parameter description

Name	Type	Description
backup_policy	object	Backup policy information. For details, see Table 5-108 .

Table 5-108 backup_policy field data structure description

Name	Type	Description
keep_days	Integer	Backup retention days. Value range: 1-732. Minimum value: 1 . Maximum value: 732
start_time	String	Backup time window. Automated backups will be triggered during the backup time window. The value must be a valid value in the "hh:mm-HH:MM" format. The current time is in the UTC format.
period	String	Backup cycle configuration. Data will be automatically backed up on the selected days every week. The value is a number separated by commas (,), indicating the days of the week.
retention_num_backup_level1	Integer	Number of retained level-1 backups. This parameter is returned when level-1 backup is enabled.

- Example normal response

```
{
  "backup_policy": {
    "keep_days": 7,
    "start_time": "19:00-20:00",
    "period": "1,2",
    "retention_num_backup_level1": 1
  }
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

5.5 Parameter Template Management

5.5.1 Querying Parameter Templates

Function

This API is used to query parameter templates, including all databases' default and custom parameter templates. Before calling this API:

NOTICE

This API will be unavailable on March 31, 2025. You are advised to switch workloads to the new API ([Querying Parameter Templates](#)) before then.

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

- URI format
GET `https://{endpoint}/mysql/v3/{project_id}/configurations`
- Example
GET `https://{endpoint}/mysql/v3/0483b6b16e954cb88930a360d2c4e663/configurations`
- Parameter description

Table 5-109 Parameter description

Name	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .

Request

None

Response

- Normal response

Table 5-110 Parameter description

Name	Type	Description
configurations	Array of objects	Parameter template list. For details, see Table 5-111 .

Name	Type	Description
total_count	Integer	Total number of parameter templates.

Table 5-111 configuration field data structure description

Name	Type	Description
id	String	Parameter template ID.
name	String	Parameter template name.
description	String	Parameter template description.
datastore_version_name	String	DB version name.
datastore_name	String	DB name.
created	String	Creation time in the "yyyy-MM-ddTHH:mm:ssZ" format. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, in the Beijing time zone, the time zone offset is shown as +0800 .
updated	String	Update time in the "yyyy-MM-ddTHH:mm:ssZ" format. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, in the Beijing time zone, the time zone offset is shown as +0800 .
user_defined	Boolean	Whether the parameter template is a custom template. <ul style="list-style-type: none"> false: The parameter template is a default template. true: The parameter template is a custom template.

- Example normal response

```
{
  "configurations":[
    {
      "id":"1ad028f5f6b8482483948860feb33339pr07",
      "name":"DBS_GaussDB_ParameterTemple_Apply_001",
      "description":"GaussDB-Test",
      "datastore_version_name":"8.0",
      "datastore_name":"gaussdb-mysql",
      "created":"2020-04-08 07:12:17",
      "updated":"2020-04-08 07:12:17",
```



```
    "user_defined":true,  
  }  
]  
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

5.6 Quota Management

5.6.1 Querying the Instance Quotas of a Tenant

Function

This API is used to modify the resource quotas of a specified enterprise project. Before calling this API:

NOTICE

This API will be unavailable on March 31, 2025. You are advised to switch workloads to the new API ([Querying the Instance Quotas of a Tenant](#)) before then.

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /mysql/v3/{project_id}/project-quotas

Table 5-112 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. To obtain this value, see Obtaining a Project ID .

Table 5-113 Query parameters

Parameter	Mandatory	Type	Description
type	No	String	Resource type used to filter quotas. Its value can be instance .

Request Parameters

Table 5-114 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token.
X-Language	No	String	Language.

Response Parameters

Status code: 200

Table 5-115 Response body parameters

Parameter	Type	Description
quotas	Object	Tenant instance quota information.

Table 5-116 project-quotas

Parameter	Type	Description
resources	Array of objects	Resource list objects.

Table 5-117 resource

Parameter	Type	Description
type	String	Quota of the specified type. The value is instance , which indicates the instance quota.
used	Integer	Number of created resources.
quota	Integer	Maximum resource quota.

Status code: 400

Table 5-118 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 5-119 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

GET https://{endpoint}/mysql/v3/054e292c9880d4992f02c0196d3ea468/quotas?type=instance

Example Response

Status code: 200

Success.

```
{
  "quotas" : {
    "resources" : [ {
      "type" : "instance",
      "used" : 4,
      "quota" : 50
    } ]
  }
}
```

Status Code

Status Code	Description
200	Success.
400	Client error.
500	Server error.

Error Code

For details, see [Error Codes](#).

5.6.2 Querying Resource Quotas

Function

This API is used to obtain the resource quotas of a specified enterprise project. Before calling this API:

NOTICE

This API will be unavailable on March 31, 2025. You are advised to switch workloads to the new API ([Querying the Resource Quotas of a Specified Enterprise Project](#)) before then.

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

- URI format
GET https://{endpoint}/mysql/v3/{project_id}/quotas
- Example
GET https://{endpoint}/mysql/v3/619d3e78f61b4be68bc5aa0b59edcf7b/quotas
- Parameter description

Table 5-120 Parameter description

Name	Mandatory	Description
project_id	Yes	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
offset	No	Index offset. If offset is set to <i>N</i> , the resource query starts from the <i>N</i> +1 piece of data. The value is 0 by default, indicating that the query starts from the first piece of data. The value cannot be a negative number.
limit	No	Number of records to be queried. The default value is 10 . The value must be a positive integer. The minimum value is 1 and the maximum value is 100 .

Name	Mandatory	Description
enterprise_project_name	No	Enterprise project name.

Request

None

Response

- Parameter description

Table 5-121 Parameter description

Name	Type	Description
quota_list	Array of objects	Quota information list. For details, see Table 5-122 .
total_count	Integer	Number of quota records.

Table 5-122 quota_list field data structure description

Name	Type	Description
enterprise_project_id	String	Enterprise project ID.
enterprise_project_name	String	Enterprise project name.
instance_quota	Integer	Quota of the DB instance quantity.
vcpus_quota	Integer	Quota of vCPUs.
ram_quota	Integer	Memory quota in GB.
availability_instance_quota	Integer	Remaining quota of DB instances.
availability_vcpus_quota	Integer	Remaining quota of vCPUs.
availability_ram_quota	Integer	Remaining memory quota.

- Example response

```
"quota_list": [
  {
    "enterprise_project_id": "0",
```

```
"enterprise_project_name":"default",
"instance_quota": 20,
"vcpu_quota": 20,
"ram_quota": 40,
"availability_instance_quota": 1,
"availability_vcpu_quota ": 4,
"availability_ram_quota": 8
},
{
"enterprise_project_id": "d72ebb42-9110-464c-a8e2-f9b9f349f80f",
"enterprise_project_name":"eps_auto_test",
"instance_quota": 0,
"vcpu_quota": 0,
"ram_quota": 0,
"availability_instance_quota ": 1,
"availability_vcpu_quota ": 4,
"availability_ram_quota ": 8
}
],
"total_count": 2
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

5.6.3 Configuring Resource Quotas

Function

This API is used to configure resource quotas for a specified enterprise project. Before calling this API:

NOTICE

This API will be unavailable on March 31, 2025. You are advised to switch workloads to the new API ([Configuring Resource Quotas for a Specified Enterprise Project](#)) before then.

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

- URI format
POST https://{endpoint}/mysql/v3/{project_id}/quotas
- Example
POST <https://{endpoint}/mysql/v3/0483b6b16e954cb88930a360d2c4e663/quotas>

- Parameter description

Table 5-123 Parameter description

Name	Mandatory	Description
project_id	Yes	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
quota_list	Yes	Quota details. Up to 10 quota records can be configured at a time. For details, see Table 5-124 .

Request

- Parameter description

Table 5-124 quota_list field data structure description

Name	Type	Description
enterprise_project_id	String	Enterprise project ID.
instance_quota	Integer	Quota of the DB instance quantity. Value range: 0–1000. (If there are already instances created, this parameter value must be greater than the number of existing instances.)
vcpus_quota	Integer	Quota of vCPUs. Value range: 0–3600000. (If there are already instances created, this parameter value must be greater than the number of used vCPUs.)
ram_quota	Integer	Memory quota in GB. Value range: 0–19200000. (If there are already instances created, this parameter value must be greater than the used memory size.)

- Request example

```
{
  "quota_list": [
    {
      "enterprise_project_id": "0",
      "instance_quota": 1,
      "vcpus_quota": 4,
      "ram_quota": 8
    }
  ]
}
```

Response

- Parameter description

Table 5-125 Parameter description

Name	Type	Description
quota_list	Array of objects	Configured quota information. For details, see Table 5-126 .

Table 5-126 quota_list field data structure description

Name	Type	Description
enterprise_project_id	String	Enterprise project ID.
instance_quota	Integer	Quota of the DB instance quantity.
vcpus_quota	Integer	Quota of vCPUs.
ram_quota	Integer	Memory quota in GB.

- Example response

```
{
  "quota_list": [
    {
      "enterprise_project_id": "0",
      "instance_quota": 1,
      "vcpus_quota": 4,
      "ram_quota": 8
    }
  ]
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

5.6.4 Modifying Resource Quotas

Function

This API is used to modify the resource quotas of a specified enterprise project.
Before calling this API:

NOTICE

This API will be unavailable on March 31, 2025. You are advised to switch workloads to the new API ([Modifying the Resource Quotas of a Specified Enterprise Project](#)) before then.

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

- URI format
PUT `https://{endpoint}/mysql/v3/{project_id}/quotas`
- Example
PUT `https://{endpoint}/mysql/v3/0483b6b16e954cb88930a360d2c4e663/quotas`
- Parameter description

Table 5-127 Parameter description

Name	Mandator y	Description
project_id	Yes	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
quota_list	Yes	Enterprise project resource quotas to be updated. A maximum of 10 quotas can be updated at a time. For details, see Table 5-128 .

Request

- Parameter description

Table 5-128 quota_list field data structure description

Name	Type	Description
enterprise_proj ect_id	String	Enterprise project ID.
instance_quota	Integer	Quota of the DB instance quantity. Value range: 0–1000. (If there are already DB instances created, this parameter value must be at least the number of existing DB instances.)

Name	Type	Description
vcpus_quota	Integer	Quota of vCPUs. Value range: 0–3600000. (If there are already DB instances created, this parameter value must be at least the number of used vCPUs.)
ram_quota	Integer	Memory quota in GB. Value range: 0–19200000. (If there are already DB instances created, this parameter value must be at least the used memory size.)

- Request example

```
{
  "quota_list": [
    {
      "enterprise_project_id": "0",
      "instance_quota": 1,
      "vcpus_quota": 4,
      "ram_quota": 8
    }
  ]
}
```

Response

- Parameter description

Table 5-129 Parameter description

Name	Type	Description
quota_list	Array of objects	Configured quota information. For details, see Table 5-130 .

Table 5-130 quota_list field data structure description

Name	Type	Description
enterprise_project_id	String	Enterprise project ID.
instance_quota	Integer	Quota of the DB instance quantity.
vcpus_quota	Integer	Quota of vCPUs.
ram_quota	Integer	Memory quota in GB.

- Example response

```
{
  "quota_list": [
    {
```

```
"enterprise_project_id": "0",  
"instance_quota": 1,  
"vcpus_quota": 4,  
"ram_quota": 8  
}  
]  
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

5.7 Database Proxy

5.7.1 Creating Proxy Instance

Function

This API is used to create a proxy instance in ELB mode. Before calling this API:

NOTICE

This API will be unavailable on March 31, 2025. You are advised to switch workloads to the new API ([Creating a Proxy Instance](#)) before then.

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).
- Database proxy is unavailable for DB instances in a DeC.

URI

- URI format
POST https://{endpoint}/mysql/v3/{project_id}/instances/{instance_id}/proxy
- Example
POST https://{endpoint}/mysql/v3/0483b6b16e954cb88930a360d2c4e663/instances/c3ec2c6148ad4d71b1a8411a62df0d3cin07/proxy
- Parameter description

Table 5-131 Parameter description

Name	Mandatory	Description
project_id	Yes	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	DB instance ID.

Request

Table 5-132 Parameter description

Name	Mandatory	Type	Description
flavor_ref	Yes	String	Proxy specification code.
node_num	Yes	Integer	Number of proxy instance nodes. It is an integer from 2 to 32.

- Request example


```
{
  "flavor_ref ":"gaussdb.mysql.large.x86.4",
  "node_num ":2
}
```

Response

- Normal response

Table 5-133 Parameter description

Name	Type	Description
job_id	String	Job ID for creating a proxy instance.

- Example normal response


```
{
  "job_id ":"3a4ea53b-3c6c-4f88-9dd0-e21ed77b7e6a"
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

5.7.2 Deleting a Proxy Instance

Function

This API is used to delete a proxy instance. Before calling this API:

NOTICE

This API will be unavailable on March 31, 2025. You are advised to switch workloads to the new API ([Deleting a Proxy Instance](#)) before then.

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).
- Database proxy is unavailable for DB instances in a DeC.

URI

- URI format
DELETE https://{endpoint}/mysql/v3/{project_id}/instances/{instance_id}/proxy
- Example
DELETE https://{endpoint}/mysql/v3/0483b6b16e954cb88930a360d2c4e663/instances/dsf23fsfdae3435in01/proxy
- Parameter description

Table 5-134 Parameter description

Name	Mandatory	Description
project_id	Yes	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	Instance ID, which is compliant with the UUID format.

Request

None

Response

- Normal response

Table 5-135 Parameter description

Name	Type	Description
job_id	String	Job ID for deleting a proxy instance.

- Example normal response

```
{  
  "job_id": "dff1d289-4d03-4942-8b9f-463ea07c000d"  
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

5.7.3 Querying Information About a Proxy Instance

Function

This API is used to query information of a proxy instance. Before calling this API:

NOTICE

This API will be unavailable on March 31, 2025. You are advised to switch workloads to the new API ([Querying Proxy Instances](#)) before then.

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).
- Database proxy is unavailable for DB instances in a DeC.

URI

GET /v3/{project_id}/instances/{instance_id}/proxy

Table 5-136 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID.

Request Parameters

Table 5-137 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token.
X-Language	No	String	Language.

Response Parameters

Status code: 200

Table 5-138 Response body parameters

Parameter	Type	Description
proxy	MysqlProxy object	Proxy instance information.
master_node	MysqlProxyNode object	Primary node information.
readonly_nodes	Array of MysqlProxyNode objects	Read replica information.

Table 5-139 MysqlProxy

Parameter	Type	Description
pool_id	String	Proxy instance ID.
status	String	Operating status of the proxy instance. Values: closed , open , frozen , opening , closing , enlarging , freezing , and unfreezing .

Parameter	Type	Description
address	String	Proxy read/write splitting address.
port	Integer	Proxy port information.
pool_status	String	Proxy instance status. Value: ACTIVE , BUILD , FAILED , or DELETED .
delay_threshold_in_seconds	Integer	Delay threshold in seconds.
elb_vip	String	Virtual IP address in ELB mode.
eip	String	EIP information.
vcpus	String	Number of vCPUs of the proxy instance.
ram	String	Memory size of the proxy instance.
node_num	Integer	Number of proxy nodes.
mode	String	Proxy instance mode. The value is Cluster .
nodes	Array of MysqlProxyNodes objects	Proxy node information.
flavor_ref	String	Proxy specifications.
name	String	Proxy instance name.

Table 5-140 MysqlProxyNodes

Parameter	Type	Description
id	String	Proxy node ID.
status	String	Proxy node status. Value: normal , abnormal , creating , or deleted .
name	String	Proxy node name.
role	String	Role of the proxy node. It can be master or slave .
az_code	String	AZ.
frozen_flag	Integer	Whether the proxy node is frozen. It can be 0 (unfrozen), 1 (frozen), or 2 (deleted after being frozen).

Table 5-141 MysqlProxyNode

Parameter	Type	Description
id	String	Node ID.
instance_id	String	Instance ID.
status	String	Node status.
name	String	Node name.
weight	Integer	Read weight of the node.
available_zones	Array of MysqlProxyAvailable objects	AZ information.

Table 5-142 MysqlProxyAvailable

Parameter	Type	Description
code	String	AZ code.
description	String	AZ description.

Status code: 400

Table 5-143 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 5-144 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/  
096c0fc43e804757b59946b80dc27f8bin07/proxy
```

Example Response

Status code: 200

Success.

```
{  
  "proxy": {  
    "pool_id": "2e7cf21d14794bafab623a334efd9ad8po01",  
    "status": "open",  
    "address": "192.168.125.69",  
    "port": 3306,  
    "pool_status": "ACTIVE",  
    "delay_threshold_in_seconds": 30,  
    "elb_vip": "192.168.125.60",  
    "eip": "192.168.125.50",  
    "vcpus": 4,  
    "ram": 8,  
    "node_num": 2,  
    "mode": "Cluster",  
    "nodes": {  
      "id": "db53a238a02240c49365e72e284a4890pn01",  
      "name": "PROXY-2e7cf21d14794bafab623a334efd9ad8po01_0",  
      "role": "master",  
      "az_code": "az1xahz",  
      "status": "ACTIVE",  
      "frozen_flag": 0  
    },  
    "name": "proxy-name"  
  },  
  "master_node": {  
    "id": "5ee8010ab992460d8d9cffcc5edabb59no07",  
    "instance_id": "7a871d6d494e4327ad2e326afb591108in07",  
    "status": "ACTIVE",  
    "name": "taurus_mysql80_x86-ondemand-2-1U4G_1_202103070251274842281_node01",  
    "weight": 0,  
    "available_zones": {  
      "code": "az1xahz",  
      "description": "AZ1"  
    }  
  },  
  "readonly_nodes": {  
    "id": "d23535333138462880bfa1838dfced2no07",  
    "instance_id": "7a871d6d494e4327ad2e326afb591108in07",  
    "status": "ACTIVE",  
    "name": "taurus_mysql80_x86-ondemand-2-1U4G_1_202103070251274842281_node02",  
    "weight": 100,  
    "available_zones": {  
      "code": "az1xahz",  
      "description": "AZ1"  
    }  
  }  
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

5.7.4 Querying Proxy Instance Information

Function

This API is used to query information of a proxy instance. Before calling this API:

NOTICE

This API will be unavailable on March 31, 2025. You are advised to switch workloads to the new API ([Querying Proxy Instances](#)) before then.

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).
- Database proxy is unavailable for DB instances in a DeC.

URI

- URI format
GET https://{endpoint}/mysql/v3/{project_id}/instances/{instance_id}/proxy
- Example
GET https://{endpoint}/mysql/v3/97b026aa9cc4417888c14c84a1ad9860/instances/436aaafb689c4250a9a5bb33cb271e8cin07/proxy
- Parameter description

Table 5-145 Parameter description

Name	Type	Mandatory	Description
project_id	String	Yes	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	String	Yes	DB instance ID.

Request

None

Response

- Normal response

Table 5-146 Parameter description

Name	Type	Description
proxy	Object	Proxy instance information. For details, see Table 5-147 .
master_node	Object	Primary node. For details, see Table 5-148 .
readonly_nodes	Array of Object	Read replica information. For details, see Table 5-149 .

Table 5-147 proxy field data structure description

Name	Type	Description
pool_id	String	Proxy instance ID.
status	String	Whether the proxy instance is enabled. It can be closed , open , frozen , opening , closing , enlarging , freezing , or unfreezing .
address	String	Proxy read/write splitting address.
port	Integer	Proxy port information.
pool_status	String	Proxy instance status. It can be abnormal , normal , creating , or deleted .
delay_threshold_in_seconds	Integer	Delay threshold in seconds.
elb_vip	String	Virtual IP address in ELB mode.
eip	String	EIP information.
vcpus	String	Number of vCPUs of the proxy instance.
ram	String	Memory size of the proxy instance.
node_num	Integer	Number of proxy nodes.
mode	String	Proxy instance mode. The value is Cluster .

Name	Type	Description
nodes	Object	Proxy node information. For details, see Table 5-150 .
flavor_ref	String	Proxy specification code.

Table 5-148 master_node data structure description

Name	Type	Description
id	String	Primary node ID.
instance_id	String	DB instance ID.
status	String	Primary node status.
name	String	Primary node name.
weight	Integer	Read/write splitting weight of the primary node.
available_zones	Array of object	AZ information. For details, see Table 5-151 .

Table 5-149 readonly_nodes field data structure description

Name	Type	Description
id	String	Read replica ID.
instance_id	String	DB instance ID.
status	String	Read replica status.
name	String	Read replica name.
weight	Integer	Read weight of read replicas.
available_zones	Array of object	AZ information.

Table 5-150 nodes field data structure description

Name	Type	Description
id	String	Proxy node ID.
status	String	Proxy node status. It can be normal , abnormal , creating , or deleted .
name	String	Proxy node name.

Name	Type	Description
role	String	Role of the proxy node. It can be master or slave .
az_code	String	AZ.
frozen_flag	Integer	Whether the proxy node is frozen. It can be 0 (unfrozen), 1 (frozen), or 2 (deleted after being frozen).

Table 5-151 available_zones field data structure description

Name	Type	Description
code	String	AZ code.
description	String	AZ description.

- Example normal response

```
{
  "proxy":{
    "pool_id":null,
    "status":"closed",
    "address":null,
    "port":null,
    "pool_status":null,
    "delay_threshold_in_seconds":null,
    "elb_vip":null,
    "eip":null,
    "vcpus":null,
    "ram":null,
    "node_num":null,
    "mode":null,
    "nodes":[
    ],
    "flavor_ref": "gaussdb.proxy.xlarge.arm.2"
  },
  "master_node":{
    "id":"294daeb0ec9e4c4eacaf2c6dbd8246a9no07",
    "instance_id":"71215aadf19c428db088e51b157583f2in07",
    "status":"ACTIVE",
    "name":"BUG-gauss-dw_node01",
    "weight":null,
  }
}
```

```
"available_zones":[
  {
    "code":"az1xahz",
    "description":"az1xahz"
  }
],
"readonly_nodes":[
  {
    "id":"b36d70cc3c3b4ef680e34c5b25b168dano07",
    "instance_id":"71215aadf19c428db088e51b157583f2in07",
    "status":"ACTIVE",
    "name":"BUG-gauss-dw_node02",
    "weight":null,
    "available_zones":[
      {
        "code":"az1xahz",
        "description":"az1xahz"
      }
    ]
  }
]
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

5.7.5 Querying Proxy Instance Specifications

Function

This API is used to query proxy instance specifications. Before calling this API:

NOTICE

This API will be unavailable on March 31, 2025. You are advised to switch workloads to the new API ([Querying Proxy Instance Specifications](#)) before then.

- Learn how to [authorize and authenticate](#) it.

- Obtain the required [region and endpoint](#).
- Database proxy is unavailable for DB instances in a DeC.

URI

- URI format
GET https://{endpoint}/mysql/v3/{project_id}/instances/{instance_id}/proxy/flavors
- Example
GET https://{endpoint}/mysql/v3/97b026aa9cc4417888c14c84a1ad9860/instances/436aaafb689c4250a9a5bb33cb271e8cin07/proxy/flavors
- Parameter description

Table 5-152 Parameter description

Name	Type	Mandatory	Description
project_id	String	Yes	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	String	Yes	DB instance ID.

Request

None

Response

- Normal response

Table 5-153 Parameter description

Name	Type	Description
proxy_flavor_groups	Array of Object	Proxy specification groups. For details, see Table 5-154 .

Table 5-154 proxy_flavor_groups field data structure description

Name	Type	Description
group_type	String	Specification group type. It can be x86 or arm .

Name	Type	Description
proxy_flavors	Array of Object	Proxy specifications. For details, see Table 5-155 .

Table 5-155 proxy_flavors field data structure description

Name	Type	Description
id	String	Proxy specification ID.
spec_code	String	Proxy specification code.
vcpus	String	Number of vCPUs. For example, the value 1 indicates 1 vCPU.
ram	String	Memory size in GB.
db_type	String	Database type.
az_status	Map<String, String>	key indicates the AZ ID and value indicates the status of the AZ where the proxy specifications reside. It can be normal or unsupported .

- Example normal response

```
{
  "proxy_flavor_groups":[
    {
      "group_type":"x86",
      "proxy_flavors":[
        {
          "id":"19be4c5d-d363-3342-bdbc-0dd9dbf7fafa",
          "spec_code":"gaussdb.proxy.large.x86.2",
          "vcpus":"2",
          "ram":"4",
          "db_type":"Proxy",
          "az_status":{
            "az1xahz":"normal"
          }
        }
      ]
    }
  ],
  {
    "group_type":"arm",
    "proxy_flavors":[
```

```
{
  "id":"2ff9a704-f238-3e7a-9ed2-208c2542c8b9",
  "spec_code":"gaussdb.proxy.large.arm.2",
  "vcpus":"2",
  "ram":"4",
  "db_type":"Proxy",
  "az_status":{"
    "az1xahz":"normal"
  }
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

5.7.6 Adding Proxy Nodes

Function

This API is used to add proxy nodes. Before calling this API:

NOTICE

This API will be unavailable on March 31, 2025. You are advised to switch workloads to the new API ([Adding Proxy Nodes](#)) before then.

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).
- Database proxy is unavailable for DB instances in a DeC.

URI

- URI format
POST https://{endpoint}/mysql/v3/{project_id}/instances/{instance_id}/proxy/enlarge
- Example

post `https://{endpoint}/mysql/v3/619d3e78f61b4be68bc5aa0b59edcf7b/instances/e73893ef73754465a8bd2e0857bbf13ein07/proxy/enlarge`

- Parameter description

Table 5-156 Parameter description

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID, which is compliant with the UUID format.

Request

Table 5-157 Parameter description

Parameter	Mandatory	Type	Description
node_num	Yes	Integer	The number of proxy nodes to be added. The value is an integer from 1 to 30. Restrictions: The total number of proxy nodes for an instance is no more than 32.

- Request example

```
{
  "node_num" : 2
}
```

Response

- Normal response

Table 5-158 Parameter description

Parameter	Type	Description
job_id	String	Task ID.

- Example normal response

```
{
  "job_id" : "04efe8e2-9255-44ae-a98b-d87cae411890"
}
```

```
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

5.8 Log Management

5.8.1 Querying Database Error Logs

Function

This API is used to query database error logs. Before calling this API:

NOTICE

This API will be unavailable on March 31, 2025. You are advised to switch workloads to the new API ([Querying Error Logs](#)) before then.

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

- URI format
GET `https://{endpoint}/mysql/v3/{project_id}/instances/{instance_id}/errorlog?offset={offset}&limit={limit}&level={level}&start_date={start_date}&end_date={end_date}&node_id={node_id}`
- Example
GET `https://{endpoint}/mysql/v3/97b026aa9cc4417888c14c84a1ad9860/instances/c3ec2c6148ad4d71b1a8411a62df0d3cin07/errorlog?offset=0&limit=100&level=ALL&start_date=2018-08-06T10:41:14+0800&end_date=2018-08-07T10:41:14+0800&node_id=cc07c60e94ec4575989840e648fb4f66no07`
- Parameter description

Table 5-159 Parameter description

Name	Type	Mandatory	Description
project_id	String	Yes	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	String	Yes	DB instance ID.
node_id	String	Yes	Instance node ID.
start_date	String	Yes	Start time in the "yyyy-mm-ddThh:mm:ssZ" format. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, in the Beijing time zone, the time zone offset is shown as +0800 .
end_date	String	Yes	End time in the "yyyy-mm-ddThh:mm:ssZ" format. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, in the Beijing time zone, the time zone offset is shown as +0800 . Only error logs generated within the last month can be queried.
offset	Integer	No	Index offset. If offset is set to <i>N</i> , the resource query starts from the <i>N</i> +1 piece of data. The default value is 0 , indicating that the query starts from the first piece of data. The value must be a positive integer and the minimum value is 0 .
limit	Integer	No	Number of records to be queried. The default value is 10 . The value must be a positive integer. The minimum value is 1 and the maximum value is 100 .
level	String	No	Log level. The default value is ALL . Values: <ul style="list-style-type: none">• ALL• INFO• WARNING• ERROR• FATAL• NOTE

Request

None.

Response

- Normal response

Table 5-160 Parameter description

Name	Type	Description
error_log_list	Array of objects	Error log details. For details, see Table 3.
total_record	Integer	Total number of records.

Table 5-161 error_log_list parameter description

Name	Type	Description
node_id	String	Node ID.
time	String	Time in the UTC format.
level	String	Log level. <ul style="list-style-type: none"> • ALL • INFO • WARNING • ERROR • FATAL • NOTE
content	String	Error log content.

- Example normal response

```
{
  "error_log_list": [
    {
      "node_id": "cc07c60e94ec4575989840e648fb4f66no07",
      "time": " 2021-03-06T12:07:05",
      "level": "ERROR",
      "content": "[MY013508] [Repl] do failed: 1"
    }
  ],
}
```

```
"total_record":15
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

5.8.2 Querying Database Error Logs

Function

This API is used to query database error logs. Before calling this API:

NOTICE

This API will be unavailable on March 31, 2025. You are advised to switch workloads to the new API ([Querying Error Logs](#)) before then.

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/instances/{instance_id}/errorlog

Table 5-162 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID.

Table 5-163 Query parameters

Parameter	Mandatory	Type	Description
start_date	Yes	String	Start time in the "yyyy-mm-ddThh:mm:ssZ" format. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, in the Beijing time zone, the time zone offset is shown as +0800 .
end_date	Yes	String	End time in the "yyyy-mm-ddThh:mm:ssZ" format. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, in the Beijing time zone, the time zone offset is shown as +0800 . Only error logs generated within the last month can be queried.
offset	No	Integer	Index offset. If offset is set to <i>N</i> , the resource query starts from the <i>N</i> +1 piece of data. The value is 0 by default, indicating that the query starts from the first piece of data. The value cannot be a negative number.
limit	No	Integer	Number of records to be queried. The default value is 100 . The value must be a positive integer. The minimum value is 1 and the maximum value is 100 .
level	No	String	Log level. The default value is ALL . Values: <ul style="list-style-type: none"> • ALL • INFO • WARNING • ERROR • FATAL • NOTE

Parameter	Mandatory	Type	Description
node_id	Yes	String	Node ID.

Request Parameters

Table 5-164 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token.
X-Language	No	String	Language.

Response Parameters

Status code: 200

Table 5-165 Response body parameters

Parameter	Type	Description
error_log_list	Array of MysqlErrorLogList objects	Error log details.
total_record	Integer	Total number of records.

Table 5-166 MysqlErrorLogList

Parameter	Type	Description
node_id	String	Node ID.
time	String	Time in the UTC format.
level	String	Log level. <ul style="list-style-type: none"> • ALL • INFO • WARNING • ERROR • FATAL • NOTE
content	String	Error log content.

Status code: 400**Table 5-167** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500**Table 5-168** Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/096c0fc43e804757b59946b80dc27f8bin07/errorlog?offset=0&limit=1&level=ALL&start_date=2022-07-10T00:00:00+0800&end_date=2022-07-19T00:00:00+0800&node_id=cc07c60e94ec4575989840e648fb4f66no07
```

Example Response**Status code: 200**

Success.

```
{
  "error_log_list": [ {
    "node_id": "cc07c60e94ec4575989840e648fb4f66no07",
    "time": "2022-07-17T07:34:33",
    "level": "ERROR",
    "content": "[MY013508] [Repl] do failed: 1"
  } ]
}
```

Status CodeFor details, see [Status Codes](#).**Error Code**For details, see [Error Codes](#).

5.8.3 Querying Database Slow Logs

Function

This API is used to query database slow logs. Before calling this API:

NOTICE

This API will be unavailable on March 31, 2025. You are advised to switch workloads to the new API ([Querying Slow Query Logs](#)) before then.

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

- URI format
GET `https://{endpoint}/mysql/v3/{project_id}/instances/{instance_id}/slowlog?offset={offset}&limit={limit}&level={level}&start_date={start_date}&end_date={end_date}&node_id={node_id}`
- Example
GET `https://{endpoint}/mysql/v3/97b026aa9cc4417888c14c84a1ad9860/instances/c3ec2c6148ad4d71b1a8411a62df0d3cin07/slowlog?offset=0&limit=100&level=ALL&start_date=2018-08-06T10:41:14+0800&end_date=2018-08-07T10:41:14+0800&node_id=cc07c60e94ec4575989840e648fb4f66no07`
– Parameter description

Table 5-169 Parameter description

Name	Type	Man dator y	Description
project_id	String	Yes	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	String	Yes	DB instance ID.
node_id	String	Yes	Instance node ID.
start_date	String	Yes	Start time in the "yyyy-mm-ddThh:mm:ssZ" format. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, in the Beijing time zone, the time zone offset is shown as +0800 .

Name	Type	Mandatory	Description
end_date	String	Yes	End time in the "yyyy-mm-ddThh:mm:ssZ" format. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, in the Beijing time zone, the time zone offset is shown as +0800 . Only error logs generated within the last month can be queried.
offset	Integer	No	Index offset. If offset is set to <i>N</i> , the resource query starts from the <i>N</i> +1 piece of data. The default value is 0 , indicating that the query starts from the first piece of data. The value must be a positive integer and the minimum value is 0 .
limit	Integer	No	Number of records to be queried. The default value is 10 . The value must be a positive integer. The minimum value is 1 and the maximum value is 100 .
type	String	No	Statement type. The default value All . If this parameter is left empty, all statement types are queried. Values: <ul style="list-style-type: none">• ALL• INSERT• UPDATE• SELECT• DELETE• CREATE• DROP• ALTER

Request
None.

Response

- Normal response

Table 5-170 Parameter description

Name	Type	Description
slow_log_list	Array of objects	Slow log information. For details, see Table 3.
long_query_time	String	Threshold of slow logs in seconds.
total_record	Integer	Total number of records.

Table 5-171 error_log_list parameter description

Name	Type	Description
node_id	String	Node ID.
time	String	Execution time.
count	String	Number of executions.
lock_time	String	Lock wait time.
rows_sent	String	Number of sent rows.
rows_examined	String	Number of scanned rows.
database	String	Database which slow logs belong to.
users	String	Account.
query_sample	String	Execution syntax.
type	String	Statement type.
start_time	String	Time in the UTC format.
client_ip	String	IP address.

- Example normal response

```
{
  "slow_log_list": [
    {
      "node_id": "cc07c60e94ec4575989840e648fb4f66no07",
      "count": "1",
      "time": "1.04899 s",
      "lock_time": "0.00003 s",

```

```
"rows_sent":"0",
"rows_examined":"0",
"database":"gaussdb-mysql",
"users":"root",
"query_sample":"INSERT INTO time_zone_name (Name, Time_zone_id)
VALUES (N, @time_zone_id);",
"type":"INSERT",
"start_time":"2121-03-25T10:55:16",
"client_ip ":"192.*.*.1"
}
],
"long_query_time":" 10",
"total_record":15
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

5.8.4 Querying Database Slow Logs

Function

This API is used to query database slow logs. Before calling this API:

NOTICE

This API will be unavailable on March 31, 2025. You are advised to switch workloads to the new API ([Querying Slow Query Logs](#)) before then.

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

GET /v3/{project_id}/instances/{instance_id}/slowlog

Table 5-172 URI parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
instance_id	Yes	String	Instance ID.

Table 5-173 Query parameters

Parameter	Mandatory	Type	Description
start_date	Yes	String	Start time in the "yyyy-mm-ddThh:mm:ssZ" format. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, in the Beijing time zone, the time zone offset is shown as +0800 .
end_date	Yes	String	End time in the "yyyy-mm-ddThh:mm:ssZ" format. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, in the Beijing time zone, the time zone offset is shown as +0800 . Only error logs generated within the last month can be queried.
offset	No	Integer	Index offset. If offset is set to <i>N</i> , the resource query starts from the <i>N</i> +1 piece of data. The value is 0 by default, indicating that the query starts from the first piece of data. The value cannot be a negative number.

Parameter	Mandatory	Type	Description
limit	No	Integer	Number of records to be queried. The default value is 100 . The value must be a positive integer. The minimum value is 1 and the maximum value is 100 .
type	No	String	Statement type. The default value All . If this parameter is left empty, all statement types are queried. Values: <ul style="list-style-type: none"> • ALL • INSERT • UPDATE • SELECT • DELETE • CREATE • DROP • ALTER
node_id	Yes	String	Node ID.

Request Parameters

Table 5-174 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token.
X-Language	No	String	Language.

Response Parameters

Status code: 200

Table 5-175 Response body parameters

Parameter	Type	Description
slow_log_list	Array of MysqlSlowLogList objects	Error log details.

Parameter	Type	Description
long_query_time	String	Slow query log threshold.
total_record	Integer	Total number of records.

Table 5-176 MysqlSlowLogList

Parameter	Type	Description
node_id	String	Node ID.
count	String	Number of executions.
time	String	Execution time.
lock_time	String	Lock wait time.
rows_sent	String	Number of sent rows.
rows_examined	String	Number of scanned rows.
database	String	Database which slow logs belong to.
users	String	Account.
query_sample	String	Execution syntax.
type	String	Statement type.
start_time	String	Start time in the UTC format.
client_ip	String	IP address.

Status code: 400

Table 5-177 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Status code: 500

Table 5-178 Response body parameters

Parameter	Type	Description
error_code	String	Error code.
error_msg	String	Error message.

Example Request

```
GET https://{endpoint}/v3/054e292c9880d4992f02c0196d3ea468/instances/096c0fc43e804757b59946b80dc27f8bin07/slowlog?offset=0&limit=1&start_date=2022-07-10T00:00:00+0800&end_date=2022-07-19T00:00:00+0800&node_id=cc07c60e94ec4575989840e648fb4f66no07&type=INSERT
```

Example Response

Status code: 200

Success.

```
{
  "slow_log_list" : [ {
    "node_id" : "cc07c60e94ec4575989840e648fb4f66no07",
    "count" : 1,
    "time" : "1.04899 s",
    "lock_time" : "0.00003 s",
    "rows_sent" : 0,
    "rows_examined" : 0,
    "database" : "gaussdb-mysql",
    "users" : "root",
    "query_sample" : "INSERT INTO time_zone_name (Name, Time_zone_id) VALUES (N @time_zone_id);",
    "type" : "INSERT",
    "start_time" : "2121-03-25T10:55:16.000Z",
    "client_ip" : "192.*.*.1"
  } ],
  "long_query_time" : 10,
  "total_record" : 15
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

5.9 Task Information Queries

5.9.1 Obtaining Information About a Task

Function

This API is used to obtain task information from the task center. Before calling this API:

NOTICE

This API will be unavailable on March 31, 2025. You are advised to switch workloads to the new API ([Obtaining Information About a Task with a Specified ID](#)) before then.

- Learn how to [authorize and authenticate](#) it.
- Obtain the required [region and endpoint](#).

URI

- URI format
GET `https://{endpoint}/mysql/v3/{project_id}/jobs?id={id}`
- Example
GET `https://{endpoint}/mysql/v3/0483b6b16e954cb88930a360d2c4e663/jobs?id=a9767ede-fe0f-4888-9003-e843a4c90514`
- Parameter description

Table 5-179 Parameter description

Name	Mandatory	Description
project_id	Yes	Project ID of a tenant in a region. To obtain this value, see Obtaining a Project ID .
id	Yes	Task ID.

Request

None

Response

- Normal response

Table 5-180 Parameter description

Name	Type	Description
job	Object	Task information. For details, see Table 5-181 .

Table 5-181 job field data structure description

Name	Type	Description
id	String	Task ID.
name	String	Task name.
status	String	Task execution status. Values: <ul style="list-style-type: none">• Running: The task is being executed.• Completed: The task is successfully executed.• Failed: The task failed to be executed.
created	String	Creation time in the "yyyy-mm-ddThh:mm:ssZ" format. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, in the Beijing time zone, the time zone offset is shown as +0800 .
ended	String	End time in the "yyyy-mm-ddThh:mm:ssZ" format. T is the separator between the calendar and the hourly notation of time. Z indicates the time zone offset. For example, in the Beijing time zone, the time zone offset is shown as +0800 .
process	String	Task execution progress.
instance	Object	DB instance on which the task is executed. For details, see Table 5-182 .
entities	Object	Displayed information varies depending on tasks. For details, see Table 5-183 .
fail_reason	String	Task failure information.

Table 5-182 instances field data structure description

Name	Type	Description
id	String	DB instance ID.
name	String	DB instance name.

Table 5-183 entities field data structure description

Name	Type	Description
instance	Object	DB instance queried in the task. For details, see Table 5-184 .
resource_ids	List<String>	Resource ID involved in a task.

Table 5-184 entities.instance field data structure description

Name	Type	Description
endpoint	String	DB instance connection address.
type	String	DB instance type.
datastore	Object	DB information. For details, see Table 5-185 .

Table 5-185 datastore field data structure description

Name	Type	Description
type	String	DB engine.
version	String	DB version.

Table 5-186 entities field data structure description (binding or unbinding an EIP)

Name	Type	Description
public_ip	String	EIP used in the task.

NOTE

In the response example, some tasks in the task center are used as examples.

- Example normal response

```
{
  "job": {
    "id": "31b8ae23-c687-4d80-b7b4-42a66c9bb886",
    "name": " RestartGaussDBInstance",
    "status": "Completed",
    "created": "2018-08-06T10:41:14+0000",
    "ended": "2018-08-06T16:41:14+0000",
    "process": "",
    "instance": {
      "id": "a48e43ff268f4c0e879652d65e63d0fbin01",
      "name": "DO-NOT-TOUCH-mgr2-gaussdb"
    },
    "entities": {}
  }
}
```

Status Code

For details, see [Status Codes](#).

Error Code

For details, see [Error Codes](#).

6 Permissions Policies and Supported Actions

6.1 Permissions Policies and Supported Actions

This chapter describes fine-grained permissions management for your TaurusDB. If your account does not need individual IAM users, then you may skip over this chapter.

By default, new IAM users do not have permissions assigned. You need to add a user to one or more groups, and attach permissions policies or roles to these groups. Users inherit permissions from the groups to which they are added and can perform specified operations on cloud services based on the permissions.

You can grant users permissions by using [Roles](#) and [Policies](#). Roles are a type of coarse-grained authorization mechanism that defines permissions related to user responsibilities. Policies define API-based permissions for operations on specific resources under certain conditions, allowing for more fine-grained, secure access control of cloud resources.

NOTE

Policy-based authorization is useful if you want to allow or deny the access to an API.

An account has all the permissions required to call all APIs, but IAM users must be assigned the required permissions. The permissions required for calling an API are determined by the actions supported by the API. Only users who have been granted permissions allowing the actions can call the API successfully. For example, if an IAM user queries GaussDB instances using an API, the user must have been granted permissions that allow the **gaussdb:instance:list** action.

Supported Actions

TaurusDB provides system-defined policies that can be directly used in IAM. You can also create custom policies and use them to supplement system-defined policies, implementing more refined access control. Operations supported by policies are specific to APIs. The following are common concepts related to policies:

- **Permission:** A statement in a policy that allows or denies certain operations.
- **APIs:** REST APIs that can be called in a custom policy.
- **Actions:** Added to a custom policy to control permissions for specific operations.
- **Related actions:** Actions on which a specific action depends to take effect. When assigning permissions for the action to a user, you also need to assign permissions for the dependent actions.
- **IAM projects or enterprise projects:** Type of projects in which policies can be used to grant permissions. A policy can be applied to IAM projects, enterprise projects, or both. Policies that contain actions supporting both IAM and enterprise projects can be assigned to user groups and take effect in both IAM and Enterprise Management. Policies that only contain actions supporting IAM projects can be assigned to user groups and only take effect for IAM. Such policies will not take effect if they are assigned to user groups in Enterprise Management. For details about the differences between IAM and enterprise projects, see [Differences Between IAM and Enterprise Management](#).

 **NOTE**

The check mark (√) indicates that an action takes effect. The cross mark (x) indicates that an action does not take effect.

6.2 TaurusDB Actions

Table 6-1 Actions

Permissions	APIs	Actions	IAM Project	Enterprise Project
Querying Resource Quotas	GET /mysql/v3/{project_id}/quotas	gaussdb:instance:list	√	√
Configuring Resource Quotas	POST /mysql/v3/{project_id}/quotas	gaussdb:quota:modify	√	√
Modifying Resource Quotas	PUT /mysql/v3/{project_id}/quotas	gaussdb:quota:modify	√	√
Querying Version Information About a DB Engine	GET /mysql/v3/{project_id}/datastores/{database_name}	gaussdb:instance:list	√	√

Permissions	APIs	Actions	IAM Project	Enterprise Project
Querying Database Specifications	GET /mysql/v3/ {project_id}/ flavors/ {database}? version_name={ve rsion_name}&spe c_code={spec_cod e}	gaussdb:instan ce:list	√	√
Creating a DB Instance	POST /mysql/v3/ {projectId}/ instances	gaussdb:instan ce:create	√	√
Querying DB Instances	GET /mysql/v3/ {projectId}/ instances	gaussdb:instan ce:list	√	√
Querying Details of a DB Instance	GET /mysql/v3/ {project_id}/ instances/ {instance_id}	gaussdb:instan ce:list	√	√
Deleting a DB Instance	DELETE /mysql/v3/ {project_id}/ instances/ {instance_id}	gaussdb:instan ce:delete	√	√
Querying Parameter Templates	GET /mysql/v3/ {project_id}/ configurations	gaussdb:param :list	√	√
Obtaining Task Information	GET /mysql/v3/ {projectId}/jobs	gaussdb:instan ce:list	√	√
Creating a Read Replica	POST /mysql/v3/ {project_id}/ instances/ {instance_id}/ nodes/enlarge	gaussdb:instan ce:create	√	√

Permissions	APIs	Actions	IAM Project	Enterprise Project
Deleting a Read Replica	DELETE /mysql/v3/ {project_id}/ instances/ {instance_id}/ nodes/{node_id}	gaussdb:instance:delete	√	√
Scaling up Storage Space of a Yearly/Monthly Instance	POST /mysql/v3/ {project_id}/ instances/ {instance_id}/ volume/extend	gaussdb:instance:modifySpec	√	√
Changing a DB Instance Name	PUT /mysql/v3/ {project_id}/ instances/ {instance_id}/ name	gaussdb:instance:modify	√	√
Resetting a Database Password	POST /mysql/v3/ {project_id}/ instances/ {instance_id}/ password	gaussdb:instance:modify	√	√
Changing DB Instance Specifications	POST /mysql/v3/ {project_id}/ instances/ {instance_id}/ action	gaussdb:instance:modifySpec	√	√
Creating a Manual Backup	POST /mysql/v3/ {project_id}/ backups/create	gaussdb:backup:create	√	√
Querying a Backup List	GET /mysql/v3/ {project_id}/ backups	gaussdb:backup:list	√	√

Permissions	APIs	Actions	IAM Project	Enterprise Project
Querying an Automated Backup Policy	GET /mysql/v3/ {project_id}/ instances/ {instance_id}/ backups/policy	gaussdb:backup:list	√	√
Modifying an Automated Backup Policy	PUT /mysql/v3/ {project_id}/ instances/ {instance_id}/ backups/policy/ update	gaussdb:instance:modifyBackupPolicy	√	√

A Appendix

A.1 Abnormal Request Results

- Abnormal response description

Table A-1 Abnormal response description

Name	Type	Description
error_code	String	Returned error code when a task submission exception occurs. For details, see Error Codes .
error_msg	String	Returned error description when a task submission exception occurs.

- Example response

```
{  
  "error_code": "DBS.280234",  
  "error_msg": "Invalid DB instance name."  
}
```

A.2 Status Codes

The following table describes status codes.

Table A-2 Status codes

Status Code	Message	Description
100	Continue	The client should continue with its request. This interim response is used to inform the client that the initial part of the request has been received and has not yet been rejected by the server.
101	Switching Protocols	The protocol should be switched. The protocol can only be switched to a more advanced protocol. For example, the current HTTP protocol is switched to a later version.
200	OK	Request succeeded.
201	Created	The request for creating a resource or task has been fulfilled.
202	Accepted	The request has been accepted, but the processing has not been completed.
203	Non-Authoritative Information	Unauthorized information. The request is successful.
204	NoContent	The server has successfully processed the request, but has not returned any content. The status code is returned in response to an HTTP OPTIONS request.
205	Reset Content	The server has fulfilled the request, but the requester is required to reset the content.
206	Partial Content	The server has processed certain GET requests.
300	Multiple Choices	There are multiple options for the location of the requested resource. The response contains a list of resource characteristics and addresses from which the user or user agent (such as a browser) can choose the most appropriate one.
301	Moved Permanently	The requested resource has been assigned a new permanent URI, and the new URI is contained in the response.
302	Found	The requested resource was temporarily moved.
303	See Other	The response to the request can be found under a different URI and should be retrieved using a GET or POST method.

Status Code	Message	Description
304	Not Modified	The requested resource has not been modified. In such a case, there is no need to retransmit the resource since the client still has a previously-downloaded copy.
305	Use Proxy	The requested resource must be accessed through a proxy.
306	Unused	The HTTP status code is no longer used.
400	BadRequest	Invalid request. The client should not repeat the request without modifications.
401	Unauthorized	The status code is returned after the client provides the authentication information, indicating that the authentication information is incorrect or invalid.
402	Payment Required	This status code is reserved for future use.
403	Forbidden	The server understood the request, but is refusing to fulfill it. The client should not repeat the request without modifications.
404	NotFound	The requested resource cannot be found. The client should not repeat the request without modifications.
405	MethodNotAllowed	The method specified in the request is not supported for the requested resource. The client should not repeat the request without modifications.
406	Not Acceptable	The server cannot fulfill the request according to the content characteristics of the request.
407	Proxy Authentication Required	This status code is similar to 401, but indicates that the client must first authenticate itself with the proxy.
408	Request Time-out	The server timed out waiting for the request. The client may repeat the request without modifications at any later time.

Status Code	Message	Description
409	Conflict	The request could not be processed due to a conflict. This status code indicates that the resource that the client attempts to create already exists, or the request fails to be processed because of the update of the conflict request.
410	Gone	The requested resource is no longer available. The requested resource has been deleted permanently.
411	Length Required	The server refuses to process the request without a defined Content-Length.
412	Precondition Failed	The server does not meet one of the preconditions that the requester puts on the request.
413	Request Entity Too Large	The request is larger than that a server is able to process. The server may close the connection to prevent the client from continuing the request. If the server temporarily cannot process the request, the response will contain a Retry-After header field.
414	Request-URI Too Large	The URI provided was too long for the server to process.
415	Unsupported Media Type	The server is unable to process the media format in the request.
416	Requested range not satisfied	The requested range is invalid.
417	Expectation Failed	The server fails to meet the requirements of the Expect request-header field.
422	UnprocessableEntity	The request is well-formed but is unable to be processed due to semantic errors.
429	TooManyRequests	The client has sent more requests than its rate limit is allowed within a given amount of time, or the server has received more requests than it is able to process within a given amount of time. In this case, it is advisable for the client to re-initiate requests after the time specified in the Retry-After header of the response expires.
500	InternalServerError	The server is able to receive the request but it could not understand the request.

Status Code	Message	Description
501	Not Implemented	The server does not support the requested function.
502	Bad Gateway	The server acting as a gateway or proxy receives an invalid response from a remote server.
503	ServiceUnavailable	The requested service is invalid. The client should not repeat the request without modifications.
504	ServerTimeout	The request cannot be fulfilled within a given time. The response will reach the client only if the request carries a timeout parameter.
505	HTTP Version not supported	The server does not support the HTTP protocol version used in the request.

A.3 Error Codes

If an error code starting with **APIGW** is returned after you call an API, rectify the fault by referring to the instructions provided in [Error Codes](#).

The following table describes error codes.

Status Code	Error Code	Error Message	Description	Troubleshooting
500	DBS.05000000	server error.	Server error.	Contact customer service.
400	DBS.05000001	The kernel version is too early.	Proxy instances cannot be created due to an early kernel version.	Upgrade the kernel version.
400	DBS.05000006	The username and password must be different.	The username and password must be different.	Enter a strong password.
400	DBS.05000007	The password cannot be the username spelled backwards.	The password cannot be the username spelled backwards.	Enter a strong password.

Status Code	Error Code	Error Message	Description	Troubleshooting
400	DBS.05000008	The current version is the latest. No update is available.	The current version is the latest. No updates are available.	Select a version later than the current version.
400	DBS.05000009	The truncate_lsn value exceeds the threshold. Change the value during off-peak hours or contact technical support.	The value of truncate_lsn exceeds the threshold. Change the value during off-peak hours or contact technical support.	The value of truncate_lsn exceeds the threshold. Change the value during off-peak hours or contact technical support.
400	DBS.05000010	The write priority of proxy nodes must be unique.	The write priority of proxy nodes must be unique.	Reset the write priority.
400	DBS.05000011	The value must be a positive integer and less than the number of primary nodes.	The value must be a positive integer and less than the number of primary nodes.	Reset the value.
400	DBS.05000012	Please contact Huawei cloud customer service to upgrade.	Contact Huawei Cloud customer service to perform the upgrade.	Contact customer service to perform the upgrade.
400	DBS.05000014	Dedicated edition cannot be changed to general-purpose edition.	Dedicated edition cannot be changed to general-purpose edition.	Do not change dedicated edition to general-purpose edition.

Status Code	Error Code	Error Message	Description	Troubleshooting
400	DBS.05000015	General-purpose edition is not supported.	General-purpose edition is not supported.	Do not choose general-purpose edition.
400	DBS.05000018	Request parameter list is empty.	The request parameter list is empty.	Check the parameter list.
400	DBS.05000019	DBA Assistant is not supported.	DBA Assistant is not supported.	Contact customer service to enable DBA Assistant.
400	DBS.05000020	No more ip addresses are available, need \$ {ipNumNeed} ,left \$ {ipNumLeft}.	Insufficient IP addresses in the subnet. Required IP addresses: \$ {ipNumNeed}. Remaining IP addresses: \$ {ipNumLeft}.	Select another subnet to create an instance.
400	DBS.05000021	dnsName has already exist.	The private domain name already exists.	Change the private domain name.
400	DBS.05000022	InstanceId do not match proxy.	The proxy instance does not belong to the DB instance.	Change the proxy instance.
400	DBS.05000023	The operation not supported. Contact the administrator please.	This operation is not supported. Contact customer service.	Contact customer service.
400	DBS.05000024	This operation cannot be performed because there are large transactions in the database.	There are large transactions in the database.	Contact customer service.
400	DBS.05000025	Failed to lock the resource package.	Failed to lock the resource package.	Contact customer service.

Status Code	Error Code	Error Message	Description	Troubleshooting
400	DBS.05000026	Resource package already exists.	The resource package already exists.	Contact customer service.
400	DBS.05000027	If read replicas can be automatically added or deleted during the auto scaling policy, you cannot create or delete proxy instances.	If read replicas can be automatically added or deleted during the auto scaling policy, you cannot create or delete proxy instances.	Do not create or delete proxy instances.
400	DBS.05000028	You do not have operation permissions \$ {agencyName}. Check account permissions on IAM.	You do not have operation permission \$ {agencyName}. Check account permissions on IAM.	Check account permissions on IAM.
400	DBS.05000029	Encrypted backup and cross-region backup cannot be both enabled.	Cross-region and encrypted backup cannot be both enabled.	Disable encrypted backup first.
400	DBS.05000030	Encrypted backup and cross-region backup cannot be both enabled.	Encrypted backup and cross-region backup cannot be both enabled.	Disable cross-region backup first.
400	DBS.05000031	The current KMS algorithm does not support encrypted backup.	The current KMS algorithm does not support encrypted backup.	Select the SM4 or AES algorithm.

Status Code	Error Code	Error Message	Description	Troubleshooting
400	DBS.0500003 2	Proxy not support this port.	The proxy instance does not support this port. Enter a correct port by referring to the official document.	Enter a correct port by referring to the official document.
400	DBS.0500003 3	Proxy dns duplicate, please reset it.	The domain name of the proxy address already exists. Reset it.	Reset the domain name of the proxy address.
400	DBS.0500003 4	The kernel version of the new instance must be later than or equal to original instance, please reset it.	The kernel version of the new instance must be later than or equal to that of the original instance. Reset it.	Select a later kernel version.
400	DBS.0500003 5	Specifying complete kernel version is not supported, please reset it.	You do not have permissions to specify a complete 4-digit kernel version.	Contact customer service to enable the corresponding whitelist feature.
400	DBS.0500003 6	Invalid records. Enter a valid value.	Invalid records. Enter a valid value.	Enter a valid value.
400	DBS.0500003 7	Invalid database charset. Enter a valid charset from [\${charsets}].	Invalid database character set. Enter a value within value range [\${charsets}].	Correct the character set.

Status Code	Error Code	Error Message	Description	Troubleshooting
400	DBS.05000038	The tag is not compliant. The tag must comply with the corresponding tag policy.	The tag is not compliant. The tag must comply with the tag policy.	Contact customer service.
400	DBS.05000042	Invalid databases. Enter a valid value.	Invalid database table. Reset it.	Check whether the database table name is correct.
400	DBS.05000043	Invalid last_table_info. Enter a valid value.	Invalid final database table. Reset it.	Check whether the final database table is correct.
400	DBS.05000044	Param error: [{parameter}].	Parameter error: [{parameter}].	Enter a correct parameter based on the error description.
400	DBS.05000045	Some databases name are repeated.	There are duplicate databases in the request.	Check whether there are duplicate databases in the request.
400	DBS.05000046	Some tables name are repeated.	There are duplicate tables in the request.	Check whether there are duplicate tables in the request.
400	DBS.05000047	Some databases name are not exists.	The source database is not found.	Check whether the source database is correct.
400	DBS.05000048	Some tables name are not exists.	The source database table is not found.	Check whether the source database table is correct.
400	DBS.05000049	Binlog meta data is not exist.	The Binlog metadata is not found.	Contact customer service.

Status Code	Error Code	Error Message	Description	Troubleshooting
400	DBS.05000058	The non-extended-use specifications cannot be changed to extended-use specifications or the other way around.	The non-extended-use specifications cannot be changed to extended-use specifications or the other way around.	Select correct specifications.
400	DBS.05000062	Kernel parameter [{parameter}] must be [{paraValue}].	The kernel parameter [{parameter}] must be set to [{paraValue}].	Change the parameter value based on the error description.
400	DBS.05000068	Not support open TDE function.	TDE cannot be enabled.	Contact customer service to enable the corresponding whitelist feature.
400	DBS.05000069	The current kernel version does not support the TDE function.	The current kernel version does not support TDE.	Select a kernel version that supports TDE.
400	DBS.05000070	Invalid TDE encryption type. Only SM4 or AES256 is supported.	Invalid TDE encryption type. Only SM4 or AES-256 is supported.	Select a supported TDE encryption type.
400	DBS.05000071	Failed to update the TDE information.	Failed to update TDE information.	Contact customer service.
400	DBS.05000072	The current user is in the blacklist. They have no permissions to create DB instances.	The current user is in the blacklist. They have no permissions to create DB instances.	Contact customer service.

Status Code	Error Code	Error Message	Description	Troubleshooting
400	DBS.05000073	The TDE instance cannot change to a kernel version that does not support TDE.	TDE is enabled for the instance, but the kernel version that instance will be changed to does not support TDE.	Select a kernel version that supports TDE.
400	DBS.05000074	You cannot specify AZs for read replicas.	You cannot specify AZs for read replicas.	Contact customer service to enable the corresponding whitelist feature.
400	DBS.05000076	Invalid proxy name.	Invalid proxy instance name.	Choose a valid proxy instance name.
400	DBS.05000077	Node deletion failed. Delete residual data on the node first.	Node deletion failed. Delete residual data on the node first.	Delete residual data on the node first.
400	DBS.05000078	New node weight is null. Please input it.	The weight of the new node is left blank. Enter a weight.	When adding a node, enter its weight.
400	DBS.05000079	Failed to verify the database synchronization configuration. Please check: [{parameter}].	Failed to verify the database synchronization configuration. Check [{parameter}].	Check the error parameter based on the error description.
400	DBS.05000080	Failed to verify the table synchronization configuration. Please check: [{parameter}].	Failed to verify the table synchronization configuration. Check [{parameter}].	Check the error parameter based on the error description.

Status Code	Error Code	Error Message	Description	Troubleshooting
400	DBS.05000081	Too many nodes.	Too many nodes.	Select the number of nodes allowed.
400	DBS.05000084	Read replicas are being created.	Read replicas are being created.	Disable the auto scaling policy after the read replicas are created.
400	DBS.05000085	The availability zone mode is not supported: [\${parameter}].	The AZ type [\${parameter}] is not supported.	Check the error parameter based on the error description.
400	DBS.05000086	Invalid AZ: [\${parameter}].	Invalid AZ: [\${parameter}].	Check the error parameter based on the error description.
400	DBS.05000087	Invalid dedicated resource id: [\${parameter}].	Invalid dedicated resource ID: [\${parameter}].	Check the error parameter based on the error description.
400	DBS.05000088	Invalid backup time: [\${parameter}].	Invalid backup time: [\${parameter}].	Check the error parameter based on the error description.
400	DBS.05000089	Invalid node quantity: [\${parameter}].	Invalid number of nodes: [\${parameter}].	Check the error parameter based on the error description.
400	DBS.05000090	Invalid security group: [\${parameter}].	Invalid security group: [\${parameter}].	Check the error parameter based on the error description.
400	DBS.05000091	Unsupported operation: [\${parameter}].	Unsupported operation: [\${parameter}].	Check the error parameter based on the error description.
400	DBS.05000092	General volume is not supported.	General-purpose storage is not supported.	Contact customer service to enable the corresponding whitelist feature.

Status Code	Error Code	Error Message	Description	Troubleshooting
400	DBS.05000093	Readonly proxy with balance route not support route to master.	When load balancing is enabled for a read-only proxy instance, requests cannot be routed to the primary node.	Contact customer service.
400	DBS.05000094	The cv_lsn value exceeds the threshold. Change the value during off-peak hours or contact technical support.	The value of cv_lsn exceeds the threshold. Change the value during off-peak hours or contact technical support.	Contact customer service.
400	DBS.05000095	This operation cannot be performed because there are long transactions in the database.	There are long-running transactions in the database.	Contact customer service.
400	DBS.05000096	CPU usage is too high or tables number exceeds the upper limit not support re-diagnose.	If the CPU usage is too high or the number of tables exceeds the upper limit, re-diagnosis is not supported.	Contact customer service.
409	DBS.05000097	The same account name and host IP already exist.	The account name and host IP address already exist.	Select a different account name or host IP address.

Status Code	Error Code	Error Message	Description	Troubleshooting
400	DBS.05000098	The current kernel version does not support level-1 backups.	The current kernel version does not support level-1 backups.	Select a proper kernel version.
400	DBS.05000099	The flavor of arm standard don't support to resize.	Specifications of the standard edition cannot be changed.	Select a correct specification code.
400	DBS.05000100	The failover priority cannot be set to 1 because the specifications of this node are different from those of the primary node.	The failover priority cannot be set to 1 because the specifications of this node are different from those of the primary node.	Set a different failover priority.
400	DBS.05000101	A manual switchover can be performed only for nodes with the failover priority set to 1.	A manual switchover can be performed only for nodes with the failover priority set to 1.	A manual switchover can be performed only for nodes with the failover priority set to 1.
400	DBS.05000102	A node with failover priority set to 1 is required.	A node with failover priority set to 1 is required.	When changing the failover priority, ensure that there is at least one node with the failover priority set to 1.

Status Code	Error Code	Error Message	Description	Troubleshooting
400	DBS.05000103	Specifications of yearly/monthly instances cannot be upgraded and downgraded at the same time.	Specifications of yearly/monthly instances cannot be upgraded and downgraded at the same time.	Contact customer service.
400	DBS.200001	Parameter error.	Parameter error.	Check whether the transferred parameters or URLs are correct.
400	DBS.200004	Parameter error.	Parameter error.	Check whether the transferred parameters or URLs are correct.
400	DBS.200006	The request is null. Enter a request parameter.	The request is null. Enter a request parameter.	Check whether any mandatory request parameter is empty.
400	DBS.200021	Invalid DB instance name.	Invalid DB instance name.	Check whether the instance name is correct.
400	DBS.200023	Storage space is out of range.	The storage space is out of range.	Check whether the storage space exceeds the allowed range.
400	DBS.200024	Invalid region.	Invalid region.	Check whether the region name is correct and whether the region is available.
400	DBS.200025	Invalid AZ.	Invalid AZ.	Check whether the AZ name is correct and whether the AZ is available.
400	DBS.200026	Invalid storage type.	Invalid storage type.	Check whether the storage type is correct.

Status Code	Error Code	Error Message	Description	Troubleshooting
400	DBS.200027	Storage space must be a multiple of 10.	Storage space must be a multiple of 10.	Check whether the storage space is a multiple of 10.
400	DBS.200040	The DB engine or version is not supported.	The DB engine or version is not supported.	Check whether the DB engine and version match and meet the requirements.
400	DBS.200041	Invalid database version.	Invalid database version.	Check whether the database version is supported.
400	DBS.200042	The DB engine does not exist.	The engine version is not found.	Check whether the DB engine is supported by TaurusDB.
400	DBS.200043	Invalid synchronize model.	Invalid HA synchronization mode.	Check whether the HA synchronization model meets the requirements.
400	DBS.200048	Invalid VPC ID.	Invalid VPC ID.	Check whether the VPC ID and name are correct and meet the requirements.
400	DBS.200049	Invalid subnet ID.	Invalid subnet ID.	Check whether the subnet ID and name are correct and meet the requirements.
400	DBS.200051	Invalid HA mode.	Invalid HA mode.	Check whether the HA mode meets the requirements.
400	DBS.200052	Invalid database root password.	Invalid database root password.	Check whether the username and password match and whether the password meets the requirements.

Status Code	Error Code	Error Message	Description	Troubleshooting
400	DBS.200053	The selected specifications do not exist.	The selected specifications are not found.	Check whether the specifications are correct and available in the current AZ.
400	DBS.200054	Invalid specifications.	Invalid specifications.	Check whether the specifications are correct and available in the current AZ.
400	DBS.200056	The maximum number of nodes has been reached.	There are too many nodes.	Check whether the number of instance nodes reaches the upper limit.
400	DBS.200063	Invalid cluster mode.	Invalid cluster mode.	Check whether the cluster mode is valid.
400	DBS.200086	This operation is not allowed by the DB instance status.	This operation is not allowed by the DB instance status.	Check whether the instance status or the ongoing operation on the instance conflicts with the request.
400	DBS.200087	The number of tags added for the DB instance has reached the quota.	The number of tags added for the DB instance has reached the quota.	Check whether the number of tags for the DB instance exceeds the upper limit.
400	DBS.200098	The tag already exists.	The tag already exists.	Check whether the tag exists.
400	DBS.200302	Storage space must be a multiple of 10.	Storage space must be a multiple of 10.	Check whether the storage space is a multiple of 10.
400	DBS.200306	The new storage space must be greater than or equal to the original storage space.	The new storage space must be at least the original storage space.	Check whether the storage space exceeds the upper limit.

Status Code	Error Code	Error Message	Description	Troubleshooting
400	DBS.200461	The parameter value is out of range.	The parameter value is out of range.	Check whether the port is valid.
400	DBS.200504	Invalid database version.	Invalid database version.	Check whether the database version is valid.
400	DBS.200543	The job does not exist.	The task is not found.	Check whether the task ID is valid.
400	DBS.200823	The database does not exist.	The database is not found.	Check whether the database can be found.
400	DBS.200824	The database account does not exist.	The database account is not found.	Check whether the database account exists.
400	DBS.201014	This operation is not allowed by the DB instance status.	This operation is not allowed by the DB instance status.	Check whether the instance status or the ongoing operation on the instance conflicts with the request.
400	DBS.201101	Invalid backup cycle.	Invalid backup cycle.	Check whether the backup cycle meets the requirements.
400	DBS.201103	Invalid backup start time.	Invalid backup start time.	Check whether the start time meets the requirement.
400	DBS.201106	Invalid retention days.	The retention period of backups is invalid.	Check whether the backup retention period meets the requirements.
400	DBS.201203	The backup file does not exist.	The backup is not found.	Check whether the backup exists and matches the instance.

Status Code	Error Code	Error Message	Description	Troubleshooting
400	DBS.201207	The DB engine or version is not supported.	The DB engine or version is not supported.	Check whether the DB engine is supported by TaurusDB.
400	DBS.201208	The operation is not allowed by the backup status.	The operation is not allowed by the backup status.	Check whether the status of the backup is Completed .
400	DBS.212002	Incorrect parameter group quota.	Incorrect parameter template quota.	Delete unnecessary parameter templates and create a new one.
400	DBS.212003	Operation not allowed.	The operation is not allowed.	Default parameter templates cannot be reset or deleted.
400	DBS.212004	Parameter group update error.	The parameter template fails to be updated.	Check whether the new parameter values are valid.
400	DBS.212005	The node does not belong to the group.	The node does not belong to the group.	Check whether the instance ID or node ID is correct.
400	DBS.212007	The DB engine does not exist.	The DB engine is not found.	Check whether the DB engine exists.
400	DBS.212008	The DB engine is not supported.	The DB engine is not supported.	Check whether the DB engine is supported by TaurusDB.
400	DBS.212009	Task processing failed.	The task fails to be processed.	Contact customer service.
400	DBS.212010	The parameter group is being applied.	The parameter template is being applied.	Perform the operation after the application is complete.

Status Code	Error Code	Error Message	Description	Troubleshooting
400	DBS.212011	Application failed.	Failed to apply the parameter template.	Contact customer service.
400	DBS.212012	The parameter does not exist.	The parameter is not found.	Check whether the new parameter is valid.
400	DBS.212014	The node does not have a default parameter group.	The node does not have a default parameter template.	Check whether the node ID or parameter template ID is correct.
400	DBS.212015	Partial success.	Partial success.	Check whether the parameters to be modified are correct.
400	DBS.212016	Parameter update failed.	Parameter update failed.	Contact customer service.
400	DBS.212017	Invalid parameter.	Parameter error.	Check whether the parameter name is valid.
400	DBS.212025	Update failed.	Update failed.	Contact customer service.
400	DBS.212030	Parameter error.	Parameter error.	The parameter template name already exists.
400	DBS.212032	The parameter template has been applied.	The parameter template has been applied.	The parameter template has been applied and cannot be deleted.
400	DBS.212037	Parameters are incorrectly set.	Parameters are incorrectly configured.	Check whether the parameter values are valid or within the valid range.

Status Code	Error Code	Error Message	Description	Troubleshooting
400	DBS.270024	Proxy instance does not exist.	The proxy instance is not found.	Check whether the tenant has the proxy instance, whether the input proxy instance ID is correct, and whether the proxy instance exists.
400	DBS.270025	Invalid weight.	Invalid weight.	Check whether the weight format and range are correct.
400	DBS.270026	Invalid proxy mode.	The proxy type is invalid.	Check whether the database proxy type is correct.
400	DBS.270027	Select a proxy instance.	No proxy instances are specified.	Check whether the proxy instance ID is null.
400	DBS.280001	Parameter error.	Parameter error.	Check whether the transferred parameters or URLs are correct and meet the requirements.
400	DBS.280127	Invalid backup description.	Invalid backup description.	Check whether the backup description is correct and meets the requirements.
400	DBS.280128	The database name does not exist.	The database name is not found.	Check whether the tenant has the DB instance, whether the DB instance name or ID is correct, and whether the DB instance exists.
400	DBS.280203	This is a weak password. Please enter a strong password.	This is a weak password. Enter a strong password.	The password is too weak. Change it to a strong one.

Status Code	Error Code	Error Message	Description	Troubleshooting
400	DBS.280204	Invalid parameter.	Invalid parameter.	Check whether the parameter value is valid or within the valid range.
400	DBS.280214	The backup does not exist.	The backup is not found.	Check whether the backup retention period is correct.
400	DBS.280216	Invalid backup start time.	Invalid backup start time.	Check whether the backup start time meets the requirements and whether the requirements between the backup start time and end time are correct.
400	DBS.280235	Invalid database type.	Invalid database type.	Check whether the DB engine is correct.
400	DBS.280237	Datastore not specified.	Datastore is not specified.	Check whether the DB engine is supported by TaurusDB.
400	DBS.280238	The DB engine or version is not supported.	The DB engine or version is not supported.	Check whether the DB engine and version match and meet the requirements.
400	DBS.280239	Invalid specifications.	Invalid specifications.	Check whether the specification code is correct, whether the specifications exist in the current AZ, and whether the specifications are supported.
400	DBS.280241	Invalid storage type.	Invalid storage type.	Check whether the storage type is correct and meets the requirements.

Status Code	Error Code	Error Message	Description	Troubleshooting
400	DBS.280242	Storage space is out of range.	The storage space is out of range.	Check whether the specified storage space is correct.
400	DBS.280246	Invalid database root password.	Invalid database root password.	Check whether the username and password match and whether the password meets the requirements.
400	DBS.280250	Invalid backup retention days.	Invalid backup retention days.	Check whether the backup data retention period is valid or within the valid range.
400	DBS.280251	Invalid backup cycle.	Invalid backup cycle.	Check whether the backup cycle is valid or within the valid range.
400	DBS.280253	Invalid backup start time.	Invalid backup start time.	Check whether the backup start time meets the requirements and whether the requirements between the backup start time and end time are correct.
400	DBS.280260	Invalid AZ mode.	Invalid AZ mode.	Check whether the AZ mode is valid.
400	DBS.280270	The parameter does not exist.	The parameter is not found.	Check whether the new parameter is valid.
400	DBS.280271	The parameter value is out of range.	The parameter value is out of range.	Check whether the parameter value is within the valid range.
400	DBS.280272	The tag key must be unique.	The tag key must be unique.	Check whether the new tag exists.

Status Code	Error Code	Error Message	Description	Troubleshooting
400	DBS.280277	Invalid backup name.	Invalid backup name.	Check whether the backup name is correct and meets the requirements.
400	DBS.280285	Invalid AZ.	Invalid AZ.	Check whether the AZ name is correct and whether the AZ is available.
400	DBS.280288	Invalid FlavorRef.	Invalid specifications.	Check whether the specification ID is null or a null string.
400	DBS.280311	Invalid storage space size.	Invalid storage space.	Check whether the specified storage space is correct and meets the requirements.
400	DBS.280325	Invalid storage information.	Invalid storage information.	Check whether the storage space or type is valid.
400	DBS.280342	Invalid cluster mode.	Invalid instance mode.	Check whether the instance mode is correct and whether the instance mode matches the instance ID.
400	DBS.280364	Invalid database port.	Invalid database port.	Check whether the database port is available.
400	DBS.280402	Invalid HA mode.	Invalid HA mode.	Check whether the HA mode meets the requirements.
400	DBS.280404	Invalid DB instance ID or node ID format.	Invalid DB instance ID.	Check whether the instance ID is valid.

Status Code	Error Code	Error Message	Description	Troubleshooting
400	DBS.280434	Invalid specification code.	Invalid specification code.	Check whether the specification code complies with the rules, whether the specifications exist, and whether the specifications are available.
400	DBS.280439	Invalid records. Enter a positive integer less than 100.	Invalid value. Enter a positive integer of no more than 100.	Check whether the number of queried records is within the valid range.
400	DBS.280448	The storage type is sold out.	The storage type is sold out.	Check whether the current storage type is available.
400	DBS.280449	Operation not allowed on frozen objects.	The operation is not allowed on frozen objects.	Check whether the instance is frozen and whether the current operation can be performed when the instance is frozen.
400	DBS.280450	The DB instance specifications are sold out.	The DB instance specifications are sold out.	Select another AZ or contact customer service.
400	DBS.280500	ELB must be enabled.	ELB must be enabled.	Enable ELB.
400	DBS.280505	CBC error: There are unprocessed orders.	CBC error: There are unprocessed orders.	Check whether the current order has been processed.
400	DBS.290000	Parameter error.	Parameter error.	Check whether the parameters or URLs are correct and meet the requirements.

Status Code	Error Code	Error Message	Description	Troubleshooting
400	DBS.290001	Invalid parameter letter case.	Invalid parameter letter case.	Check whether the parameter letter case is correct and meets the requirements.
403	DBS.200010	The DB instance ID or user ID may be null, or the operation is not authorized.	The DB instance ID or user ID may be left blank, or the operation is not authorized.	Check whether the input parameters are correct, whether the instance exists, and whether the tenant performs unauthorized operations.
403	DBS.200044	Resource not found or permission denied.	Resources are not found or permissions are denied.	Check whether the input parameters are correct, whether the resource exists, and whether the tenant has access permissions.
403	DBS.200604	The DB instance ID or user ID may be null, or the operation is not authorized.	The DB instance ID or user ID may be left blank, or the operation is not authorized.	Check whether the input parameters are correct, whether the instance exists, and whether the tenant has unauthorized operations.
403	DBS.200810	You are not allowed to create databases on read replicas.	You are not allowed to create databases on read replicas.	Create databases on the primary node.
403	DBS.200819	You are not allowed to delete database users on read replicas.	You are not allowed to delete database users on read replicas.	Database users cannot be deleted from read replicas.

Status Code	Error Code	Error Message	Description	Troubleshooting
403	DBS.201003	Resource not found or permission denied.	Resources are not found or permissions are denied.	Check whether the parameters are correctly configured, whether the access resources exist, and whether the tenant has the access permission.
403	DBS.280015	Resource not found or permission denied.	Resources are not found or permissions are denied.	Check whether the parameters are correctly configured, whether the access resources exist, and whether the tenant has the access permission.
403	DBS.280056	Invalid token.	Invalid token.	Check whether the instance belongs to the tenant and whether the token has been obtained again.
404	DBS.200002	The DB instance does not exist.	The DB instance is not found.	Check whether the instance and its ID are correct and whether the instance exists.
404	DBS.200008	The ECS information of the DB instance cannot be found.	The ECS information of the DB instance cannot be found.	Check whether the parameters are correctly configured and whether the instance status is normal.
404	DBS.200013	The original DB instance does not exist.	The original DB instance is not found.	Check whether the instance and its ID are correct and whether the instance exists.

Status Code	Error Code	Error Message	Description	Troubleshooting
404	DBS.200045	The DB instance does not exist.	The DB instance is not found.	Check whether the instance and its ID are correct and whether the instance exists.
404	DBS.200050	The security group does not exist or does not belong to the VPC.	The security group is not found or does not belong to the VPC.	Check whether the security group ID is valid, whether the security group exists, and whether the private IP address for read of the node belongs to the security group.
404	DBS.200408	The DB instance does not exist.	The instance is not found or has been deleted.	Check whether the instance and its ID are correct and whether the instance exists.
404	DBS.200470	The region or AZ does not exist.	The region or AZ is not found.	Check whether the region or AZ is correct.
404	DBS.200501	The subnet does not exist or does not belong to the VPC.	The subnet is not found or does not belong to the VPC.	Check whether the subnet ID and name exist and whether the subnet belongs to the VPC.
404	DBS.200503	The VPC does not exist or does not belong to the user.	The VPC is not found or does not belong to the user.	Check whether the tenant has the VPC.
404	DBS.200602	The DB instance does not exist.	The DB instance is not found.	Check whether the instance and its ID are correct and whether the instance exists.
404	DBS.201010	The backup information does not exist.	The backup information is not found.	Check whether the backup exists and matches the instance.

Status Code	Error Code	Error Message	Description	Troubleshooting
404	DBS.201028	The DB instance does not exist.	The instance is not found or has been deleted.	Check whether the instance and its ID are correct and whether the instance exists.
404	DBS.212001	The parameter group does not exist.	The parameter template is not found.	Check whether the parameter template exists.
404	DBS.290002	The selected specifications do not exist.	The selected specifications are not found.	Check whether the specifications are correct and available in the current AZ.
404	DBS.290005	The DB instance does not exist.	The DB instance is not found.	Check whether the instance and its ID are correct and whether the instance exists.
404	DBS.290011	The DB instance does not exist.	The DB instance is not found.	Check whether the instance and its ID are correct and whether the instance exists.
404	DBS.290013	Resource not found.	Resources are not found.	Check whether the parameters are correct and whether the DB instance exists.
409	DBS.200011	Another operation is being performed on the DB instance or the DB instance is faulty.	Another operation is being performed on the DB instance or the DB instance is faulty.	Check the instance status or whether the ongoing operation on the instance conflicts with the request.

Status Code	Error Code	Error Message	Description	Troubleshooting
409	DBS.200019	Another operation is being performed on the DB instance or the DB instance is faulty.	Another operation is being performed on the DB instance or the DB instance is faulty.	Check the instance status or whether the ongoing operation on the instance conflicts with the request.
409	DBS.200022	The DB instance name already exists.	The DB instance name already exists.	Check whether the instance name exists.
409	DBS.200047	Another operation is being performed on the DB instance or the DB instance is faulty.	Another operation is being performed on the DB instance or the DB instance is faulty.	Check the instance status or whether the ongoing operation on the instance conflicts with the request.
409	DBS.200316	This operation cannot be performed because the DB instance status is Storage full.	This operation cannot be performed because the DB instance status is Storage full .	Adjust the storage space.
409	DBS.200826	The database name already exists.	The database name already exists.	Check whether the database name is valid.
409	DBS.200827	The database user already exists.	The database user already exists.	Check whether the database user is valid.
409	DBS.200828	You are not allowed to create a database built-in account.	You are not allowed to create a database built-in account.	Check whether the database user is valid.

Status Code	Error Code	Error Message	Description	Troubleshooting
409	DBS.201202	Another operation is being performed on the DB instance or the DB instance is faulty.	Another operation is being performed on the DB instance or the DB instance is faulty.	Check the instance status or whether the ongoing operation on the instance conflicts with the request.
409	DBS.201205	Backup is in progress, please wait.	Backup is in progress.	Try again after the backup is complete.
409	DBS.212006	Another operation is being performed on the DB instance or the DB instance is faulty.	Another operation is being performed on the DB instance or the DB instance is faulty.	Check the instance status or whether the ongoing operation on the instance conflicts with the request.
409	DBS.280406	Operation not allowed by the DB instance type or status.	The operation is not allowed by the DB instance type or status.	Check whether the instance type and instance status meet requirements.
413	DBS.200046	The number of DB instances has reached the quota.	The number of DB instances has reached the quota.	Contact the database administrator to adjust the quota.
413	DBS.290003	The number of DB instances has reached the quota.	The number of DB instances has reached the quota.	Contact the database administrator to adjust the quota.
422	DBS.212019	The parameter cannot be processed.	The parameter or object in the request cannot be identified.	Check whether the parameter is valid.
500	DBS.108000	Server failure.	Server failure.	Contact customer service.

Status Code	Error Code	Error Message	Description	Troubleshooting
500	DBS.108002	Server failure.	Server failure.	Contact customer service.
500	DBS.108005	Server failure.	Server failure.	Contact customer service.
500	DBS.200005	Server failure.	Server failure.	Contact customer service.
500	DBS.200208	Server failure.	Server failure.	Contact customer service.
500	DBS.200811	Failed to create the database.	Failed to create the database.	Check whether resources are insufficient and then contact customer service.
500	DBS.200821	Failed to modify database user permissions.	Failed to modify database user permissions.	This operation is not allowed in the current instance status. Try again later.
500	DBS.213002	Failed to process the request.	Failed to process the request.	Internal service error. Contact customer service.
500	DBS.213004	Failed to process the request.	Failed to process the request.	Internal service error. Contact customer service.
500	DBS.290006	Failed to process the request.	Failed to process the request.	Internal service error. Contact customer service.
500	DBS.290015	Failed to process the request.	Failed to process the request.	Contact customer service.

A.4 Obtaining a Project ID

Scenarios

When calling APIs, you need to specify the project ID in some URLs. To do so, you need to obtain the project ID first. Two methods are available:

- [Obtaining the Project ID by Calling an API](#)
- [Obtain a Project ID from the Console](#)

Obtaining the Project ID by Calling an API

You can obtain the project ID by calling the API used to [query project information based on the specified criteria](#).

The API used to obtain a project ID is **GET https://{Endpoint}/v3/projects**. **{Endpoint}** is the IAM endpoint and can be obtained from [Regions and Endpoints](#). For details about API authentication, see [Authentication](#).

The following is an example response. The value of **id** is the project ID.

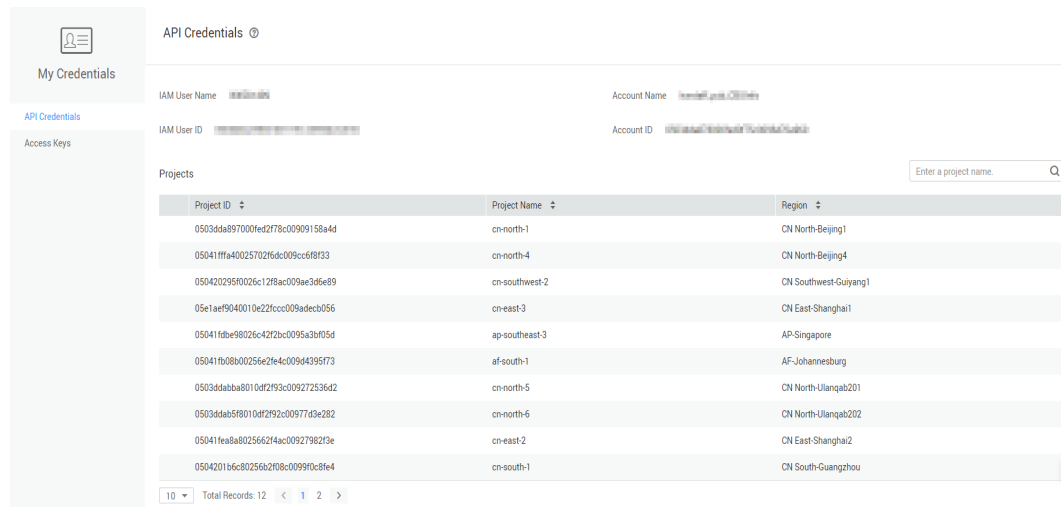
```
{
  "projects": [
    {
      "domain_id": "65382450e8f64ac0870cd180d14e684b",
      "is_domain": false,
      "parent_id": "65382450e8f64ac0870cd180d14e684b",
      "name": "project_name",
      "description": "",
      "links": {
        "next": null,
        "previous": null,
        "self": "https://www.example.com/v3/projects/a4a5d4098fb4474fa22cd05f897d6b99"
      },
      "id": "a4a5d4098fb4474fa22cd05f897d6b99",
      "enabled": true
    }
  ],
  "links": {
    "next": null,
    "previous": null,
    "self": "https://www.example.com/v3/projects"
  }
}
```

Obtain a Project ID from the Console

- Step 1** Register yourself on the management console and log in to it.
- Step 2** Hover the mouse over the username in the upper right corner and select **My Credentials** from the drop-down list.

On the **API Credentials** page, view the project ID in the project list.

Figure A-1 Viewing project IDs



----End

A.5 TaurusDB Metrics

Function Description

This section describes namespaces, descriptions, and dimensions of metrics to be reported to Cloud Eye. You can use APIs provided by Cloud Eye to retrieve metrics and alarm information generated for TaurusDB.

Namespace

SYS.GAUSSDB

Metrics

Table A-3 Metrics

Metric	Name	Description	Value Range	Remarks
gaussdb_mysql001_cpu_util	CPU Usage	CPU usage of the monitored object	0-100%	Monitored object: ECS Monitored instance type: TaurusDB instance
gaussdb_mysql002_mem_util	Memory Usage	Memory usage of the monitored object	0-100%	Monitored object: ECS Monitored instance type: TaurusDB instance

Metric	Name	Description	Value Range	Remarks
gaussdb_mysql004_bytes_in	Network Input Throughput	Incoming traffic in bytes per second	≥0 Bytes/s	Monitored object: ECS Monitored instance type: TaurusDB instance
gaussdb_mysql005_bytes_out	Network Output Throughput	Outgoing traffic in bytes per second	≥0 Bytes/s	Monitored object: ECS Monitored instance type: TaurusDB instance
gaussdb_mysql006_conn_count	Total Connections	Total number of connections that connect to the MySQL server	≥0 Connections	Monitored object: database Monitored instance type: TaurusDB instance
gaussdb_mysql007_conn_active_count	Current Active Connections	Number of active connections	≥0 Connections	Monitored object: database Monitored instance type: TaurusDB instance
gaussdb_mysql008_qps	QPS	Query times of SQL statements (including DDL, DML, SHOW, SET statements and storage procedures) per second	≥0 Times/s	Monitored object: ECS Monitored instance type: TaurusDB instance
gaussdb_mysql009_tps	TPS	Execution times of submitted and rollback transactions per second	≥0 Times/s	Monitored object: ECS Monitored instance type: TaurusDB instance

Metric	Name	Description	Value Range	Remarks
gaussdb_mysql010_innodb_buffer_usage	Buffer Pool Usage	Ratio of used pages to total pages in the InnoDB buffer	0-100%	Monitored object: ECS Monitored instance type: TaurusDB instance
gaussdb_mysql011_innodb_buffer_hit	Buffer Pool Hit Ratio	Ratio of read hits to read requests in the InnoDB buffer	0-100%	Monitored object: ECS Monitored instance type: TaurusDB instance
gaussdb_mysql012_innodb_buffer_dirty	Buffer Pool Dirty Block Ratio	Ratio of dirty data to all data in the InnoDB buffer	0-100%	Monitored object: database Monitored instance type: TaurusDB instance
gaussdb_mysql013_innodb_reads	InnoDB Read Throughput	Number of read bytes per second in the InnoDB buffer	≥0 Bytes/s	Monitored object: database Monitored instance type: TaurusDB instance
gaussdb_mysql014_innodb_writes	InnoDB Write Throughput	Number of write bytes per second in the InnoDB buffer	≥0 Bytes/s	Monitored object: ECS Monitored instance type: TaurusDB instance
gaussdb_mysql017_innodb_log_write_req_count	InnoDB Log Write Requests per Second	Number of InnoDB log write requests per second	≥0 Requests/s	Monitored object: ECS Monitored instance type: TaurusDB instance

Metric	Name	Description	Value Range	Remarks
gaussdb_mysql020_temp_tbl_count	Temporary Tables	Number of temporary tables automatically created on hard disks when MySQL statements are executed	≥0 Tables	Monitored object: ECS Monitored instance type: TaurusDB instance
gaussdb_mysql028_comdml_del_count	DELETE Statement s per Second	Number of DELETE statements executed per second	≥0 Statements/s	Monitored object: ECS Monitored instance type: TaurusDB instance
gaussdb_mysql029_comdml_ins_count	INSERT Statement s per Second	Number of INSERT statements executed per second	≥0 Statements/s	Monitored object: database Monitored instance type: TaurusDB instance
gaussdb_mysql030_comdml_ins_sel_count	INSERT_SELECT Statement s per Second	Number of INSERT_SELECT statements executed per second	≥0 Statements/s	Monitored object: database Monitored instance type: TaurusDB instance
gaussdb_mysql031_comdml_rep_count	REPLACE Statement s per Second	Number of REPLACE statements executed per second	≥0 Statements/s	Monitored object: ECS Monitored instance type: TaurusDB instance
gaussdb_mysql032_comdml_rep_sel_count	REPLACE_SELECT Statement s per Second	Number of REPLACE_SELECT statements executed per second	≥0 Statements/s	Monitored object: ECS Monitored instance type: TaurusDB instance

Metric	Name	Description	Value Range	Remarks
gaussdb_mysql033_comdml_sel_count	SELECT Statement s per Second	Number of SELECT statements executed per second	≥0 Statements/s	Monitored object: ECS Monitored instance type: TaurusDB instance
gaussdb_mysql034_comdml_upd_count	UPDATE Statement s per Second	Number of UPDATE statements executed per second	≥0 Statements/s	Monitored object: ECS Monitored instance type: TaurusDB instance
gaussdb_mysql035_innodb_delete_row_count	Row Delete Frequency	Number of rows deleted from the InnoDB table per second	≥0 Rows/s	Monitored object: database Monitored instance type: TaurusDB instance
gaussdb_mysql036_innodb_insert_row_count	Row Insert Frequency	Number of rows inserted into the InnoDB table per second	≥0 Rows/s	Monitored object: database Monitored instance type: TaurusDB instance
gaussdb_mysql037_innodb_read_row_count	Row Read Frequency	Number of rows read from the InnoDB table per second	≥0 Rows/s	Monitored object: ECS Monitored instance type: TaurusDB instance
gaussdb_mysql038_innodb_update_row_count	Row Update Frequency	Number of rows updated into the InnoDB table per second	≥0 Rows/s	Monitored object: ECS Monitored instance type: TaurusDB instance
gaussdb_mysql048_disk_used_size	Used Storage Space	Used storage space of the monitored object	0 GB-128 TB	Monitored object: ECS Monitored instance type: TaurusDB instance

Metric	Name	Description	Value Range	Remarks
gaussdb_mysql072_conn_usage	Connection Usage	Percent of used MySQL connections to the total number of connections	0-100%	Monitored object: ECS Monitored instance type: TaurusDB instance
gaussdb_mysql074_slow_queries	Slow Query Logs	Number of MySQL slow query logs generated per minute	≥0 Queries/min	Monitored object: database Monitored instance type: TaurusDB instance
gaussdb_mysql077_replication_delay	Replication Delay	Data replication latency between the primary node and read replicas	≥ 0s	Monitored object: database Monitored instance type: TaurusDB instance
gaussdb_mysql104_dfv_write_delay	Storage Write Latency	Average latency of writing data to the storage layer in a specified period	≥0 ms	Monitored object: ECS Monitored instance type: TaurusDB instance
gaussdb_mysql105_dfv_read_delay	Storage Read Latency	Average latency of reading data from the storage layer in a specified period	≥0 ms	Monitored object: ECS Monitored instance type: TaurusDB instance
gaussdb_mysql106_innodb_row_lock_current_waits	InnoDB Row Locks	Number of row locks being waited by operations on the InnoDB table	≥0 Locks	Monitored object: ECS Monitored instance type: TaurusDB instance

Metric	Name	Description	Value Range	Remarks
gaussdb_mysql107_comdml_ins_and_ins_sel_count	INSERT and INSERT_SELECT Statements per Second	Number of INSERT and INSERT_SELECT statements executed per second	≥0 Statements/s	Monitored object: ECS Monitored instance type: TaurusDB instance
gaussdb_mysql108_com_commit_count	COMMIT Statements per Second	Number of COMMIT statements executed per second	≥0 Statements/s	Monitored object: database Monitored instance type: TaurusDB instance
gaussdb_mysql109_com_rollback_count	ROLLBACK Statements per Second	Number of ROLLBACK statements executed per second	≥0 Statements/s	Monitored object: database Monitored instance type: TaurusDB instance
gaussdb_mysql110_innodb_bufpool_reads	InnoDB Storage Layer Read Requests per Second	Number of times that InnoDB reads data from the storage layer per second	≥0 Times/s	Monitored object: database Monitored instance type: TaurusDB instance
gaussdb_mysql111_innodb_bufpool_read_requests	InnoDB Read Requests per Second	Number of InnoDB read requests per second	≥0 Requests/s	Monitored object: database Monitored instance type: TaurusDB instance
gaussdb_mysql114_innodb_bufpool_read_ahead	InnoDB Bufpool Read Ahead	Number of pages read into the InnoDB buffer pool by the read-ahead background thread	≥0 Pages	Monitored object: database Monitored instance type: TaurusDB instance

Metric	Name	Description	Value Range	Remarks
gaussdb_mysql115_innodb_bufpool_read_ahead_evicted	InnoDB Bufpool Read Ahead Evicted	Number of pages read into the InnoDB buffer pool by the read-ahead background thread that were subsequently evicted without having been accessed by queries	≥0 Pages	Monitored object: database Monitored instance type: TaurusDB instance
gaussdb_mysql116_innodb_bufpool_read_ahead_rnd	InnoDB Bufpool Read Ahead Rnd	Number of random read-aheads initiated by InnoDB	≥0 Read-aheads	Monitored object: database Monitored instance type: TaurusDB instance
gaussdb_mysql117_innodb_pages_read	InnoDB Pages Read	Number of pages read from the InnoDB buffer pool by operations on InnoDB tables	≥0 Pages	Monitored object: database Monitored instance type: TaurusDB instance
gaussdb_mysql118_innodb_pages_written	InnoDB Pages Written	Number of pages written by operations on InnoDB tables	≥0 Pages	Monitored object: database Monitored instance type: TaurusDB instance
gaussdb_mysql019_innodb_log_writes	InnoDB Log Writes	Number of physical writes to the InnoDB redo log file	≥0 Writes	Monitored object: database Monitored instance type: TaurusDB instance

Metric	Name	Description	Value Range	Remarks
gaussdb_mysql342_iostat_iops_write	I/O Write IOPS	Number of disk writes per second	≥0 Operations/s	Monitored object: database Monitored instance type: TaurusDB instance
gaussdb_mysql344_iostat_iops_read	I/O Read IOPS	Number of disk reads per second	≥0 Operations/s	Monitored object: database Monitored instance type: TaurusDB instance
gaussdb_mysql346_iostat_throughput_write	I/O Write Bandwidth	Disk write bandwidth per second	≥0 Bytes/s	Monitored object: database Monitored instance type: TaurusDB instance
gaussdb_mysql348_iostat_throughput_read	I/O Read Bandwidth	Disk read bandwidth per second	≥0 Bytes/s	Monitored object: database Monitored instance type: TaurusDB instance
gaussdb_mysql119_disk_usage_ratio	Disk Usage	Disk usage of the monitored object	0-100%	Monitored object: database Monitored instance type: TaurusDB instance 1 minute
gaussdb_mysql371_taurus_binlog_total_file_counts	Binlog Files	Number of TaurusDB binlog files	≥0	Monitored object: database Monitored instance type: TaurusDB instance 5 minutes

Metric	Name	Description	Value Range	Remarks
gaussdb_mysql378_create_temp_tbl_per_min	Temporary Tables Created per Minute	Number of temporary tables automatically created on disks per minute when TaurusDB statements are executed	≥0 Tables/min	Monitored object: database Monitored instance type: TaurusDB instance 1 minute

Dimension

Key	Value
gaussdb_mysql_instance_id	TaurusDB instance ID.
gaussdb_mysql_node_id	Node ID of the TaurusDB instance.